

QCWA JOURNAL

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**1994
NATIONAL
CONVENTION**

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QUARTER CENTURY WIRELESS ASSN., INC.

September 29 - October 1, 1994

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CHAPTER 64**

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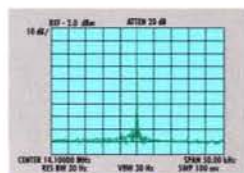
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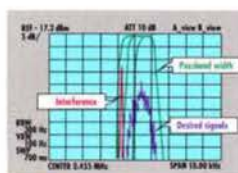
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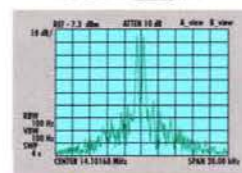
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Our Cover

Y'all come down to El Paso for QCWA's National Convention. There will be plenty to do and see while in the beautiful border city.

For more information, see the Summer issue of the *JOURNAL*. For your convenience, you will find a registration form on page 140.

See you there!

Welcome Aboard New Advertisers

As you can see, we have added several new advertisers. We welcome Kenwood, Yaesu, and ICOM, plus Amateur Radio Mail Order Catalog which has a special offer for QCWA members.

Please support these advertisers as they think enough of the organization to support it.

Deadline for Next Issue

The deadline for the next issue of the *JOURNAL* is November 1, 1994. Please have your Chapter Reports, articles, advertisement commitments in the mail by that date.

The expected mail date is December 15, 1994.

Thank you very much for your support of the *JOURNAL*.

QSO Party Corrections

Hermann Pratsch, DL9PR, was listed as "AL" in the QSO Party results. He should have been listed as belonging to Chapter 106. Our apologies also go to Robert Reed, WB2DIN, for not listing him in the results. He should have been listed as 34th in the SSB results with a score of 2,160.

Another Correction

Your Editor wishes to apologize to Director Walt Brink, W3WPY, and the Del-Mar-Va Chapter 150 for twice incorrectly listing their Chapter name. We thought we had it corrected in the last issue. Actually, we did on one page but not on another and the page we did have it listed correctly we chose to not use at the last minute.

With 60 pages of a magazine that contains over 46,000 words, sometimes we fall asleep. We did that time, Walt. Sorry, old friend.

The President's Message

It seems a little odd for me to write that line "President's Message" because believe it or not, in my long life I have never been a president, not a radio club, not any organization, or bluntly—anything. Most of you know me as a technical writer, lecturer and editor, either from my many years at ARRL or with *CQ* magazine.

Some 12 years ago or so Stu Meyer, W2GHK, approached me and asked to run as a QCWA director. To be honest, I wasn't that much interested at the time but something started to bother me. I had made my life's work amateur radio and I felt through QCWA, I could repay what I considered a debt due.

I quickly discovered I had a real interest and there were satisfying rewards in serving on the QCWA Board. I gradually became more and more "hooked" and devoted a great deal of my time working to improve the organization. I have served under three presidents, Leland Smith, W5KL, Stu Meyer, W2GHK, and the last five years with Harry Dannals, W2HD. I might add here that they were all fine presidents.

I also soon discovered a little about "term" limits. Believe it or not, it took me at least two, two year terms to understand what was going on. I have worked on nearly all the committees we have, and I am just completing five years as vice president plus being chairman of the Finance and Administration Committee. During those last critical five years we have seen many changes in our Headquarters and management. A complete change in our *JOURNAL* has taken place. We are now undergoing a large change in our financial management. Hopefully, all this will make a much stronger QCWA.

My goals now? I see amateur radio facing a tremendous challenge. Why? This recent sale of frequencies to the public was a huge, and financially a very large success on the part of the government. The amount of money realized was a little more than one half billion dollars. Politicians love money and if this sale doesn't present a problem to amateur radio, you better think again. This presents a mood of foreboding to amateur radio—and our frequencies. It is tough to fight the dollar but we had better be prepared to do so. That is just one reason I want to see a large increase in our membership. With the help from our present members, we will all be working in that direction, protecting our frequencies.

Also, I want to see a much stronger scholarship program. Our future is in our youth and we can be very proud as QCWAers for our excellent scholarship program—but we can do more! As many members realize, QCWA has taken an active role in FCC matters as concern not only our members, but all amateurs. As you members have discovered from reading this *JOURNAL*, we already have a regular column on FCC matters, written by our own "Man in Washington" who just incidentally is our new QCWA vice president—Jack Kelleher.

Speaking of our *JOURNAL*, you have all noticed the major change in our publication. All this is because of Joe Lynch, N6CL, our editor. Joe is a fine writer, technically very smart, and has the pulse of modern amateur radio. We are very lucky to have Joe at the helm.

Let us also not forget our General Manager, Jim Walsh, W7LVN, and his assistant Jan. I convinced Jim to take over the General Manager's job when Ted had to step down. I knew that Jim was very capable but I had no idea he would be this good.

So we now have a fine organization with much to offer to amateur radio. By its very nature, QCWA is made up of experience—we have a minimum of 250,000 years. I might add, that experience is recognized by our government. We certainly should be able to act with wisdom. I would like to thank all of you in advance for your support.

73 de Lew McCoy, W1ICP, President, QCWA.

The General Manager's Message

It is now into the month of August and the election returns are in. This year, for the first time, we elected the entire Board of Directors, officers and directors. It is planned that the election will take place every other year and we shall see some savings in election costs. My congratulations to all those who make up the new Board of Directors. Note that we have five new people on the Board for this term.

I receive a number of excellent newsletters from the Chapters and I enjoy reading all of them. I must call to your attention the newsletter published by the NW Ohio Chapter 142. It is an excellent publication and shows a lot of care in its production. There is an organization called ARNS, or Amateur Radio News Service, which sees such publications and offers suggestions to improve them. ARNS recently issued a certificate to the Chapter in the Excellent category for their publication complementing "...the excellence of its performance and outstanding contribution to Amateur Radio journalism during 1993..."

Our new President, Lew McCoy, W1ICP, wants to increase the membership of QCWA. There are several ways to accomplish this, but one of the best is for each of us to find one (or more) new members for QCWA this year. Almost everyone with a prefix of "W, K, or WA" could be eligible for membership. If you don't ask they will remain out there for someone else to ask. Why don't you be the first to ask?

73 de Jim Walsh, W7LVN, General Manager.

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Harry S. Gartsman, W6ATC	1978-1981
Stuart Meyer, W2GKH (SK)	1982-1985
Leland Smith, W5KL	1986-1989
Harry Dannals, W2HD	1989-1994

Executive Secretary/General Manager

Ralph Barber, W2ZM (SK)	1955-1964
Gus Gironda, W2JE (SK)	1965-1973
Ethel Smith, K4LMB	1974-1976
Ted Heithecker, W5EJ (SK)	1976-1991

The Quarter Century Wireless Association, Inc. was founded December 5, 1947, as a non-commercial association of radio amateurs organized for the promotion of interest in Amateur Radio communication and experimentation, for the establishment and advancement of the radio art and of the public welfare. QCWA is an incorporated association without capital stock chartered under the laws of the State of New York, and is a tax exempt 501(C)3 organization under the Internal Revenue Code of 1986. Its affairs are governed by a President, Vice-President, Secretary, Treasurer and a Board of Directors, whose voting members are elected every two years by the general membership. In order to

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EDITORIAL

It is fall...

It is the time of year that the leaves turn, and students start back to school. Being from the west coast, I didn't get to enjoy the evidence of the seasons changing while I was growing up. Nevertheless, I did enjoy it vicariously through the pictures of it on calendars and in magazines. Still, I wondered what it would be like to watch the seasons change.

I got my chance a little over ten years ago when I moved to Oklahoma City. There I went back to school and moved on campus at Oklahoma City University. In the fall, I got to see the changes of the seasons for the first time. Watching the end of summer and the beginning of fall being expressed with the changes in the leaves and eventually in the trees shedding those leaves and associating those changes with the changes occurring in me as I was learning new subjects left an indelible impression on me.

Now, whenever I see the changes in the seasons, for a moment my mind travels back to the campus at OCU. I think of the importance that higher education has played in my life. I think of the challenges facing students today on campus. I hope they have good professors, the ones who really care about teaching their students from the wells of their knowledge.

However, there is also one other thing that I think of. How do these students pay for the cost of their education? That, in turn, causes me to think about my Uncle Frank.

When my mom passed away during my youth, Uncle Frank moved in with us for a year to help my dad with the transition. He was a life-long bachelor, so he could make changes in his life fairly easily. When he moved in, he brought his typewriter. Because his bedroom adjoined mine, I used to hear him typing late at night and early in the morning when us kids would be in bed.

Finally, one morning my curiosity got the best of me. I got out of bed, walked through the house to his bedroom door, entered his bedroom, and asked him why was he doing all that typing.

He replied that he was a writer and that he wrote articles for magazines. He then picked up a stack of *Jack and Jill* magazines and, peeling off the first one, opened it to the page where his article appeared. I read the title over and over. Then I read the byline, again over and over, mentally reciting "By: Frank DeZoete." That was my Uncle Frank—in print!

From then on it became a fascination to watch my Uncle Frank peck away at the typewriter, his pipe firmly implanted in his mouth and the smoke curling up over his bald head. I knew that someday I too would be a writer.

There was a reason my uncle was a life-long bachelor. It was his own vow of celibacy. When he was a young college student, he was in the seminary training to become a Roman Catholic priest. His uncle was paying the bill—until the Depression. That was when his uncle lost it all, and my uncle was forced to drop out of school. He never did become a priest. Nevertheless, he served the church in a lay capacity all his life. Eventually he went to Zaire and served there until cancer forced him home to die.

I wonder what might have been different in my uncle's life if he had been able to finish his training. Because he did not become a priest, I could tell that there was something missing in him. It was as if he was on the outside, looking in. Sort of like the child who, outside the toy store, not being able to afford the toy, looks longingly in the window, knowing that life would someday pass him by and the toy would never be a part of him. The joys of playing with that toy would also pass him by, leaving him to wonder what might have been.

This brings me back to my musings on education. While my uncle was able to experience some of the fulfillment of the ministry later in his life by becoming a deacon, he still did not have the full satisfaction of his primary vocation, that of being a fully ordained priest. I again wonder at what might have been for him. Could his compassion have been expressed from the pulpit as he preached to his congregation or from his pastoral office as he counseled his parishioners? I will never know. The person, his uncle, who could have made a difference in my uncle's educational goals, was eventually not able to do so.

While this story has a disappointing turn to it, there could be a story in your life or in the life of someone else—maybe someone you don't even know, who will not have to experience that sad turn of events. How can you help assure that such a disappointment will not occur? By contributing to the QCWA Scholarship Fund.

Your contribution will help make the difference in someone's life as he or she pursues his or her educational goals; goals that will eventually lead to his or her career track. Having that boost of financial aid may make just enough of a difference between dropping out and finishing college. You just never know what small part you might play in someone's life.

Remember last editorial, where I talked about my friend Emil Pocock, W3EP, and of his eagerness to find out his membership number so he could sponsor one of his students for a scholarship? Well, his student, David Case, KAINCN, won one of our scholarships!

Need I say more?

For a list of the other scholarship winners, please turn to page 119.

Until next issue...

73 de Joe Lynch, N6CL.

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Letters to the Editor

Please send your letters to: Editor, QCWA JOURNAL, P. O. Box 73, Oklahoma City, OK 73101, Internet: 72124.2734@compuser.com, or fax at 405-528-0746.

"Constitution Remembrances"

Dear Editor:

The summer issue of the *QCWA JOURNAL* has arrived and was read with enjoyment. Keep up the good work. The article by Don Johnson, W6AAQ, was of special interest and brought back memories.

One of the Constitutions, R60, visited the Olathe Naval Air Station, Olathe, Kansas, in later 1948 or in 1949. It was so long ago I'm not sure of the date. The R60 came in for a landing from the North. The runways at that time were rather short and had not as yet been extended. The plane was so low that one of the landing gear wheels clipped a telephone pole just North of the fence. No damage and the pilot was unaware of the contact with the wooden pole until later. The R60 was parked near the GCA school hanger, where I was an instructor, and I had to drive under the port wing to get to my assigned parking place. The plane was huge!

When the plane took off, there were JATO bottles attached to the fuselage. When about half way down the runway the pilot fired the bottles and the huge plane lifted off easily amid a lot of white smoke.

In 1950 I was stationed at Moffett Field, CA, and worked out of one of the huge blimp hangers. The two Constitutions were maintained from the same hanger. One afternoon there was a loud explosion. Seems a crew was working on the landing gear of one of the planes and failed to deflate the tire before removing the rim. One of the crewmen was killed instantly.

I never did hear what happened to the two unique planes. Nay have been melted down to make soft drink cans.

73, Dave Raynes, K5LF

...and a Correction

Dear Editor:

I just received the latest *JOURNAL*, and in reading the story by Don Johnson, W6AAQ, he states that the Lockheed Constitution was the first pressurized aircraft in the cabin area.

Whoa up there, Don. You're wrong, OM. In 1941, Pan Am's Eastern Division was flying the Boeing 307 aircraft with a pressurized hull on the South American routes. I know because I flew a lot of them.

The '307 was used on the Miami-Balboa run, the run to Belem via San Juan, and Port of Spain. Cruising was around 10 to 18 k and cabin pressured to approximately 6k. There were three of these aircraft; NC19902, 19903, and 19910. I flew in all three of them on all routes. I was very glad to see them because it meant I would not be catching any bow lines as in the S42/43/40/38 series of Sikorsky aircraft.

I just could not let that one go by without making a little noise, hi.

73, Carl Watson, W1NV, 55 years and growing in QCWA!

More Compliments on the JOURNAL...

Dear Editor:

Thanks for a very good *QCWA JOURNAL*. It is a professional magazine and you have done well. I like the articles. Historical and technical tomes are especially enjoyable.

Sincerely, Ken Covey, W0ZQJ

Dear Editor:

Just a short note to express congratulations on the fine job you are doing with the *QCWA JOURNAL*.

The QCWA needs to grow and with your fine publication it will be of great assistance in QCWA growth.

Keep up the good work!

Best of 73, H.R. "Dick" Thompson, KI4KR

Dear Editor:

The new format of the *JOURNAL* is just great! I have had many good comments—even from hams who are not eligible for QCWA.

Thanks, and best to you, John Feltz, WA9LWJ.

Dear Editor:

I enjoyed the summer edition very much and received many favorable comments from members of our Chapter. Congratulations to you and your staff for a job well done. Looking forward to the next edition.

Thank you and 73, Jay Hitchcock, K8YGH, Secretary, Chapter 107.

Dear Editor:

Congratulations on your stellar performance in putting out the *JOURNAL*.

Just a note to let you know I appreciate your hard work in putting out such a super XLIII, No. 2 issue.

Keep up the good work.

73, Bill, K6HV

Dear Editor:

The new *QCWA JOURNAL* cover looks so good that I had to write a letter and congratulate you. Certainly you have upgraded the status of the *JOURNAL* and I think the cover is excellent. I wish you well and maybe some day we will get to meet.

Cordially, Joseph H. Cutchin, Jr., W3ETT

...and Criticisms

Dear Editor:

The *QCWA JOURNAL* is shaping up to be a fine publication of excellent quality.

However, the Board of Directors should authorize the Editor to purchase a word processor with a spelling checker to avoid future spelling errors in the Editorial ("eligible" was spelled "elgible" four times).

Respectfully, Dick Genaille, W4UW

Dear Editor:

The new *JOURNAL* face may be outstanding, but the Sunflower Chapter 79 members have been short-changed, specifically Al Unruh, W0AWP. The purpose of the *JOURNAL* is to provide "pertinent news items and QCWA action articles from Chapters and members." As such, it is not a general amateur magazine.

As Secretary of the Sunflower Chapter, I am very upset with the treatment of Al Unruh, W0AWP; he was presented a 70-year service certificate on August 25, 1993. This was reported by letter to QCWA (Jim Walsh) on September 8, 1993 in more than sufficient time for the Winter 1993 *JOURNAL*. Included with the letter were three photographs of the award presentation, a photograph of his first station, 9BIO and an autobiography of Al. Al had exchanged several letters with Jim Walsh about the article and requested the return of the 9BIO photograph.

The Winter 1993 *JOURNAL* contained a very abbreviated Chapter report but stated "The *JOURNAL* will carry an autobiography of Al in a future issue." Al's amateur radio accomplishments are many. In the

1994 QCWA CW QSO Party he placed 37th. He has worked all US Counties (see December 1991 *CQ*, page 86, to list some recent ones). We are very proud of his accomplishments over the years.

Can you tell me when the Al Unruh, W0AWP, article will appear in the *JOURNAL*?

Sincerely, Del Patterson, W0JCY, Secretary-Treasurer, Sunflower Chapter 79

Dear Del:

My apologies go to Al Unruh and Chapter 79. It was one of those reports that "slipped through the cracks" (on my end) during the transition between editors. Please see the "Chapter Reports" section for Al's overdue autobiographical report and your latest Chapter report.

Regarding your comments about the purpose of the *JOURNAL*, please keep in mind that nearly half of the members do not belong to a chapter and approximately one-third of the members do not subscribe to any other major ham radio publication. I have to present a magazine that appeals to all their interests.

Additionally, because ham radio is a hobby of wide interests, I am trying to include articles and columns of interest to almost all of our members. Furthermore, because there is a wide spread of ages between the older members and the younger, newer members, I am trying to appeal to both ends of the age spectrum.

Therefore, like it or not, there is a "defacto" general audience appeal of the *JOURNAL* because we are all different.

Finally, the *JOURNAL* is a sales tool for the organization. And, as such, we must put our best face forward when we are selling *QCWA* to potential members and potential advertisers!

73, Ed

Dear Editor:

I am told the deadline for the fall issue reports is the end of this week [August 1]. The Chapter 181 report is enclosed herewith.

It would be better to have in hand the summer issue but as of today's mail [July 25], my copy has not arrived. In the future, please try to get the issues out earlier so we will have the advantage of having access to it. The mail system has some pretty long delays built into it, Hi!

73 de Dick O'Brien, NJ2J, Secretary, Ch. 181

Dear Dick:

Six weeks is too long even for post office standards. The summer issue of the *JOURNAL* was put in the mail on June 21, six days later than normal because of my being out of the country and at the ARRL National Convention. I apologize for the week's delay on my part. However, appropriate concerns have been raised with the post office over its tardiness.

For your records, the following is the schedule of deadlines: Winter, November 1; Spring, February 1; Summer, May 1; and Fall, August 1. Every effort is made to have the *JOURNAL* in the mail by 45 days after the deadline dates.

73, Ed.

Kudos for Carol King, K5CPZ

Dear Editor:

I think Carol did a wonderful job in her column in reporting on me. I've had many notes from "old friends" as a result of the article. Even *QST* contacted me for an interview! Many thanks!

73 de Helen Schmock, W8GJX.

In The News

QCWA Officers Elected

The results of your balloting for the officers of QCWA are as follows: There were a total of 3718 ballots cast. For president, 3536 votes were cast for Lew McCoy, W1ICP. As he was unopposed, he was declared elected. For vice-president, 3560 votes were cast for Jack Kelleher, W4ZC. As he was unopposed, he was declared elected. For secretary, 3562 votes were cast for John Swafford, W4HU. As he was unopposed, he was declared elected. For treasurer, 3558 votes were cast for Wes Randles, W4COW. As he was unopposed, he was declared elected.

The votes cast for directors were as follows: Jack Troster, W6ISQ, 3344; Walter Brink, W3WPY, 3268; John Edel, K8LBZ, 3266; John Huntoon, W1RW, 3224; Amelia "Millie" Wise, W5OVH, 3162; Milt Chaffee, W1EFW, 3151; Croft Taylor, VE3CT, 3139; Garry Harrison, WAØRWS, 2847; Ed Yoder, W3YMB, 2722; Larry Shima, WØPAN, 2574; Sam Beraducci, W2IWB, 2334; and Gladys Chase, W1VPF, 2080.

Of the twelve candidates, the ten who received the highest number of votes were declared elected.

All officers assumed their office September 1, 1994.

QCWA Officers and Board wishes to thank the Central Washington Chapter 170 which acted as tellers for the election.

QCWA National Award Recipients Named

The following have been voted by the Board of Directors and the President to receive national awards at the QCWA National Convention banquet on October 1, 1994.

For the Hall of Fame Award, Leo Meyerson, WØGFQ; for the John DiBlasi Award, Helen Schmock, W8GJX; for the Distinguished Service Award, Ken Miller, K6IR; for the Presidential Award, Jerry Seveck, W2FMI, and Bill Orr, W6SAI; and for Member of the Year Award, Jay Strom, K9BSL.

Congratulations to all the recipients of these National Honors awards.

Scholarship Winners Named

The Foundation for Amateur Radio, the organization that administers the scholarship program for QCWA has named the scholarship winners for the 1994-1995 school year.

The seven winners of the general fund scholarships are: David A. Case, KA1NCN, Hampton, Connecticut; Jennifer Doerrie, KA5WMJ, Booker, Texas; Andrew S. Faiola, N3GLA, Silver Spring, Maryland; Kurt R. Fuller, NØROP, Fenton, Missouri; Joshua D. Hodges, KC4HTJ, Screven, Georgia; Stacy S. Jones, N5KRK, Harrison, Arkansas; and Timothy D. Mah, N9JYM, Buffalo Grove, Illinois.

The winner of the Ralph Hasslinger Charter Member Memorial Scholarship is Peter S. Wyckoff, KA3WCA, Washington Crossing, Pennsylvania. The winner of the Max Jacobson-John Kelleher Family Scholarship is Matthew J. Minney, N8PGI, Shock, West Virginia. The winner of the Leo Meyerson Family Living Scholarship is Douglas P. Regulinski, N2QAN, Stony Brook, New York.

Congratulations to all the fine students. Complete biographies of the winners will appear in the Winter issue of the *JOURNAL*.

QCWAer AEA 1994 Amateur Ambassador Winner

Members of QCWA, and especially Atlanta Chapter 49, should be especially proud to know that fellow QCWAer Jim Stafford, W4QO, received the 1994 AEA Amateur Ambassador Award for his dedication and his efforts in promoting the "Radio Active Schools Program" in the greater Atlanta area. In addition to the award, Jim received a \$1,000 award plus an all-expense trip to Dallas for the ARRL National Convention.

Jim, who has been a member of QCWA and Atlanta Chapter 49 for years is a primary "moving force" in the Metro-Atlanta Pioneers Amateur Radio Club (MATPARC) is very active in other noteworthy amateur efforts such as "Stars" or SciTrek Amateur Radio Society located in Atlanta. "Stars" and the "Radio-Active Schools Program" allow teachers and students opportunities to get "first-hand" experiences and knowledge of Amateur Radio.

QCWA and Atlanta Chapter 49 are very proud of Mr. Stafford for his true and unselfish dedication to our young people and Amateur Radio.

QCWA HQ Station W2MM Now On the Air

Thanks to the generous donation of a Yaesu FT757 by Bill Stevens, W6ZM, Headquarters Station W2MM can now be heard on the HF ham bands. Contact HQ if you are in the area and wish to use the station. Remember to bring your original license if you wish to get on the air.

60th Wedding Anniversary Celebrated by W7BCT and WA7UFS



Jim, W7BCT, and Ramona Barrows, WA7UFS, on the occasion of their 60th Wedding Anniversary.

(August 1994, Bothell, Washington) Jim, W7BCT, and Ramona Barrows, WA7UFS, celebrated their 60th wedding anniversary at their home, at a gathering hosted by their sons, Chuck, K7BVT, and Jimmy. Three grandchildren, including Richard Barrows, N7VHV, three great-grandchildren and the original brides maid, Edna Relyea, WA7ZND, attended, as well as relatives and ham radio friends.

Jim and Ramona both retired from the Federal Communications Commission in 1971.

AMATEUR RADIOSPORTING IN CUBA TODAY



The entire team of COØFRC and CO2OJ Rover. From left to right, standing: Piro Pirole, CO2PL; Chip Margelli, K7JA; Janet Margelli, WA7WMB; Oscar Morales, CO2OJ; Jose Amador, CO2JA; Pedro Hernandez, CO2KG; Mario Rodriguez, CO2YY; Arnie Coro, CO2KK; Joe Lynch, N6CL; and Lauren Libby, KXØO. Seated: Pedro, the van (rover) driver.

By: Chip Margelli, K7JA, DX Editor

CUBA The very mention of the name of this country to an American citizen will usually conjure up a vivid set of images in his or her mind.

Castro. The Soviet Union. The Missile Crisis. Guantanamo Bay. Boat People. Angola. Radio Marti. Even hate.

This mind set has remained largely intact until today, even in the face of the astounding historical events of the past five years which swept communism away in much of eastern Europe.

Fidel Castro is still atop the government; the United States has no embassy in Havana; we maintain Guantanamo Bay as a heavily fortified "fence line" in a corner of this communist land; and people still make the treacherous journey in rafts across the Florida Straits for political or economic reasons.

But the Cubans have come home from Angola, the Soviet Union does not exist, and one therefore is given pause to reflect on what other changes Cuba may be experiencing. Since Amateur Radio operators are in a unique position to bridge social and political differences which can't even be approached by our respective leaders, just what is the state of Cuban Amateur Radio today?

Against this backdrop, I was honored to be asked by *JOURNAL* Editor Joe Lynch, N6CL, to join himself and Lauren Libby, KX00, to travel as a journalistic team to Cuba to report on Cuban Radiosporting activities. I was commissioned by Joe to author an article for the *JOURNAL*, and rounding out the team was my wife Janet, WA7WMB, commissioned by *QST* to do an article for the ARRL's flagship publication. Our team was invited by the Federacion de Radioaficionados de Cuba (FRC) to make a fully-hosted visit to observe the activities surrounding their multi operator entry in the ARRL June VHF QSO Party as COØFRC over the weekend of June 4th and 5th, 1994.

The Country

Cuba's economy is a highly centralized communist one which was supported for three decades by the Soviet Union. Since the early 1960s, the United States has enforced an embargo against Cuba which prohibits almost any form of economic activity between Cuba and the USA. Tourism, business, and the transfer of goods from one country to the other are prohibited. US airlines may not fly to and from Cuba, and credit cards issued by US banks will not be honored when presented for collection if the transaction occurred in Cuba.

With the departure of Soviet support for the Cuban economy, many aspects of the economic infrastructure were suddenly disabled. Cuba is not a large nation, and although it is not without natural resources of its own, as an island nation it must import many critical items including oil and some foodstuffs. Without Soviet supplies, and in the face of the US embargo, severe rationing of food and gasoline has become widespread. Many families eat only one meager meal per day, and transportation can be a serious problem.

Because of the embargo, American-made cars have not been imported since the late 1950s. As a result, the cars one sees on the road are mostly either Russian-made or 1950s vintage American. Anything larger than a sub-compact size is likely to be an old Plymouth, Dodge, Ford, Chevy, or Cadillac, often in impeccable physical condition on the outside. On the inside, they're probably 50 percent Russian parts after three decades of maintenance. And because of the demand for any vehicle in an economy under embargo, these cars can cost one to three years' salary to acquire.

Because the Cuban-Soviet economic alliance, coupled with the US embargo, effectively isolated Cuba from the overall world economy, it suffered the fate of Albania when it suddenly was thrust upon the world market. Not having inflated with the world's other currencies over the past three decades, its currency was worthless. It is interesting to note, then, that through tourism and other economic contacts with citizens and nations not party to the embargo that the US Dollar has come to be the pseudo-official currency of Cuba!

These economic conditions have a profound impact on many of the Cuban radio amateur community's activities, as we shall see.

The COØFRC Site: Bellomonte, Cuba

Because of the difficult conditions in which the Cuban people live, we expected to find sticks and wire when we arrived at Bellomonte, located about 15 miles east of Havana on the north side of the island, the location of the FRC's contest effort. It was Thursday evening, June 2, 1994.

What we found, in fact, was a thoroughly enthusiastic group of contest operators, as intent on preparations as any US Field Day group I've seen. Inside a 20' x 40' Russian army tent were five operating tables, each being readied for the operation. Outside, we found a four-element 50 MHz cubical quad, designed and built by Jose Amador, CO2JA, which was already generating sporadic-E contacts on six meters. For two meters, the FRC group had erected two stacked 14-element Yagis, as well as a long-boom 70 cm Yagi, all of which were aimed over the Gulf of Mexico in search of tropo signals from Texas or Louisiana. Inside, we found Piro, CO2PL on 20 meters making schedules for the contest. Right next to him, Pedro, CO2KG was busy with a *micrometer* doing precise alignment on the centering of the elements on the 1296 MHz Yagi.

The Bellomonte site is approximately 300 feet above sea level on an east-west ridge about 300 feet wide. In front of the site, the hill drops off precipitously to sea-level salt marshes, with the ocean being less than a half mile to the north. Immediately in



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back of the ridge, the land drops off similarly into a deep valley many miles wide. Needless to say, this is a spectacular radio location, affording a salt-water "launch," for horizontally polarized signals over almost 180 degrees of azimuth in the northerly direction.

Prior to our arrival at Bellomonte, we had been welcomed by Arnie Coro, CO2KK, Oscar Morales, Jr., CO2OJ, and FRC President Pedro Rodriguez, CO2RP, all of whom made it clear to the visiting Americans that, although we were there to observe and report, we were also to feel like family. It didn't take long for us to put down note pads and start pulling cables through the grass as more antennas found their way into the air. This was Ham Radio, after all, and many smiles and handshakes gave us genuine cause to believe that these chaps "put their trousers on one leg at a time," just like we did.

The FRC

The first night at the site led to spirited discussions, chiefly involving Joe, Lauren, Arnie, and FRC President Rodriguez, the latter of whom was particularly interested in emergency communications planning for his nation. We were interested to discover that, although the Havana Radio Club has over 800 members, the FRC officials felt a need to promote Amateur Radio to the population of Cuba as a whole, so as to garner more government support for frequency allocations as well as to encourage more people to become hams; the American contingent all grinned at each other, as it sounded very familiar. Joe and Lauren went into lengthy explanations of the ARRL's field organization, as well as the structure of ARES and RACES, and the assembled Cubans listened with the attentiveness one might expect from a people in the path of hurricanes for several months out of each year.

In Cuba, emergency planning must be more detailed than in most countries. Not only must precious emergency food and medical supplies be allocated with care, the gasoline rationing caused by the embargo means that even the fuel for the delivery trucks must be allocated cautiously so there will be enough to go around. Communicating a region's exact requirements is, therefore, critical to the execution of an emergency plan, so VHF and 40 meter capabilities are encouraged among the Amateur community. The COØFRC operation was, in part, to be a demonstration of field high-performance communications capabilities of the Amateur fraternity, and a television crew from Havana spent several hours at the site on Saturday afternoon, taking video to be shown to the nation that evening.

What was unspoken was the knowledge, within the group, that everyone's ability to pull off a joint operation was at test. A joint operation involving citizens whose governments are bitter enemies. An operation that might, in a small way, show that people *can* work toward a common goal, despite the political differences of their governments.

The Contest

As with most VHF contests, the COØFRC group could not possibly predict whether conditions would favor them or not. Saturday at the start of the contest, six meters was widely open to much of the eastern USA, providing many grid locator multipliers at high speed. Two meters was covered well throughout Florida on tropo, although no extended propagation across the Gulf of Mexico occurred. The first-ever 222 MHz and 1296 MHz contacts between

Cuba and the United States were completed Sunday morning, with the 1296 MHz contact creating many cheers of joy, because it was over a 300 mile hop to the mainland.

Janet had sat down on 20 meters early Saturday to gauge interest in the operation via 20 meters, and she soon found herself inundated with questions about our six-meter frequency, our two-meter frequency, meteor-scatter schedules, and people just interested to know what Cuba was all about. And particularly how a Yankee came to be signing CO2/WA7WMB. With a single exception during the Pan American Games in 1991, our group was the first to be granted licenses to operate as CO2/(home call) in over three decades. The interest in the Cuban operation, whether it was in the contest, on OSCAR 13, or in the twenty-meter pile-up, was very high.

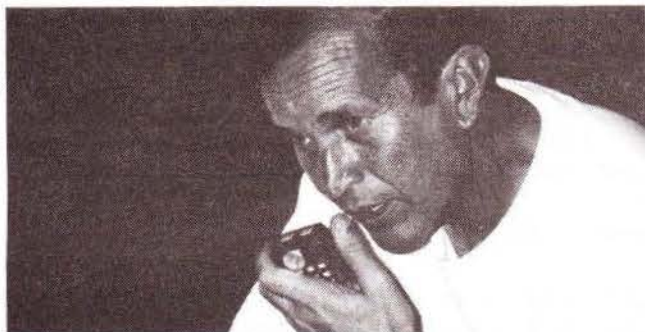


Jose Amador, CO2JA, center, displays log sheet showing the first ever 1296 MHz contact in Cuba. He is surrounded by, from left to right, Pedro Hernandez, CO2KG, Arnie Coro, CO2KK, Janet Margelli, WA7WMB, and Lauren Libby, KXØØ. Photo courtesy N6CL.

During the planning time on Friday, Joe had approached Oscar Morales, CO2OJ, about an interesting twist to the operation; a "Rover" entry. For those of you not familiar with VHF contesting, "Rovers" are mobile or portable stations that hop from grid locator to grid locator, providing new multipliers to the big stations. Their scores from each grid locator from which they operate all add together. It can be a lot of work, but there were several grid locators in Cuba that had not been activated on VHF—ever! International goodwill through Amateur Radio being what it is, Joe and Oscar did, indeed, put together a station which operated as "CO2OJ/Rover," an American and a Cuban, driving around Havana in a European-built Dodge mini van bristling with antennas, and filled with transmitting equipment! It hardly seemed possible that this was happening.



Oscar Morales, CO2OJ, and QCWA JOURNAL Editor-in-Chief Joe Lynch, N6CL (not shown), operated as "CO2OJ/Rover" from a Dutch Dodge Caravan during the contest. Photo courtesy N6CL.



President, Pedro Rodriguez, CO2RP, of the Federación de Radioaficionados de Cuba (FRC), our host, takes his turn on 2-meters FM during the contest. Photo courtesy Larry Blake.

Sunday afternoon of the contest, I was informed that Dave Blaschke, W5UN, wanted to try to work us at our moon set on two meters. Although I only had use of my Yaesu FT-290RII with a 2.4 kHz bandwidth, plus the two Yagis and about 300 watts of "brick," narrowing the bandwidth on the Timewave DSP filter to 100 Hz provided enough signal-to-noise to pull Dave's signal out of the noise. It required almost a full half hour before the closing "R R R R R R R R R" exchange caused more hoots of delight from the crew.

Although no records were set by COØFRC, the score of over 30,000 points appears to be very high worldwide in the DX multi operator category. And CO2OJ/Rover may well have been the first ever "DX Rover" entry, so that score will undoubtedly set some sort of a record. (Ed note: according to Billy Lunt, KR1R, at ARRL Headquarters Contest Desk, it was the first ever.)



Author, Chip Margelli, K7JA, intensely calls "CQ Contest" during one of the downpours that occurred during the contest. The headgear (towel) is to keep off the water that was coming into the Russian army tent during the storm. Photo courtesy Larry Blake.

The Real Results

Observing the Cuban Amateurs in action was a unique experience, an honor not to be taken lightly. The Cuban hams do not have a lot of hardware at their disposal due to the embargo, so they have to be quite resourceful. For example, The COØEGZ team, a competing group, in a panic over a lack of power at their hilltop operating site, got 105 volts out of a single-wire AC line hastily run through 1000 feet of jungle, with ground rods at each end providing the rest of the circuit!

The Cuban people at large, similarly, do not have a lot of "things," because of the economic situation which has persisted for years, so friends and family take on much importance in their daily

lives. I sensed a certain pride, not arrogance, in the people we met, a confidence and strength which grows out of surviving difficult times. Their country has excellent doctors, perhaps the highest literacy rate in all of Latin America, and a very educated population seeking even more communication with the outside world.

The people we spoke to know that their country has many problems. Some of them are relics of the Cold War, some of them are with regard to political freedom. But they did observe, quite, correctly, that abuses can happen anywhere. ("Just who is this Rodney King person we saw on CNN?" they asked.)

The United States and Cuba are close geographical neighbors. We both have red, white, and blue in our flags. And we both have active, motivated Amateur Radio communities dedicated to helping serve our respective nations and the world as a whole, in time of need. It would seem to this writer that there would be some long-term window of opportunity for better relations between our two peoples. Let's hope that our leaders will have the courage to find a path to that day, not forgetting the sadness of the past, but in the hope of providing a brighter tomorrow for our children.

73 de Chip Margelli, K7JA.

Current Contests

Sept 24-25	CQ WW RTTY Contest
Sept 24-25	Scandinavian Activity SSB Contest
Sept 24-25	Washington State Salmon Run
Sept 25-26	Classic Radio Exchange
Sept 26	Canada 144 MHz Sprint
October 1	Canada 50 MHz Sprint
October 1-2	California QSO Party
October 1-2	VK-ZL Oceania SSB DX
October 1-2	RSGB 21/28 MHz SSB
October 8-9	VK-ZL Oceania CW DX
October 8-9	Illinois QSO Party
October 12-14	YLRL CW Anniversary Party
October 15-16	JARTS WW RTTY Contest
October 15-16	QRP ARCI Fall CW QSO Party
October 15-16	Worked All Germany
October 15-16	RSGB 21/28 MHz CW
October 15-16	JOTA Contest
October 26-28	YLRL SSB Anniversary Party
October 29-30	CQ WW SSB DX Contest
October 29-30	ARRL EME Test first weekend
November 4-6	Japan International DX Contest
November 5-7	ARRL CW Sweepstakes
November 12-13	European RTTY Contest
November 12-13	OK-DX Contest
November 19-21	ARRL SSB Sweepstakes
November 26-27	CQ WW DX CW Contest
November 26-27	ARRL EME Test second weekend
December 2-4	ARRL 160-meter CW Contest
December 8-9	ARRL 10-meter Contest
December 31	RAC Canada Winter Contest
January 1	ARRL Straight Key Night
January 7-8	ARRL RTTY Roundup Contest
January 7-8	Michigan QRP Club CW Contest
January 14-15	HA DX Contest
January 21-23	ARRL VHF Sweepstakes
January 27-29	CW WW 160-meter CW Contest
January 28-February 5	ARRL Novice Roundup

Courtesy John Dorr, K1AR, and CQ magazine.

VHF/UHF Super Range

Tune into the meteorological phenomena called tropospheric ducting that allowed west coast hams to set new records this past summer. It's relatively easy to predict tropo paths, and Gordon West gives you some tricks that have seldom been published before.

By: Gordon West, WB6NOA, Features Editor, 2414 College Dr., Costa Mesa, CA 92626

Another hot August afternoon in Southern California. The weather service indicates no relief in sight. The Pacific high pressure system won't budge an inch for the next week or two. And Southern California smog levels continue to cause eye watering.

Hams love it!

Down on 144.200 MHz, mobile stations running a single horizontally polarized loop antenna are working single sideband direct to Hawaiian mobile stations driving in downtown Hilo, Hawaii. Paul Lieb, KH6HME, up at the Hawaiian beacon transmitter site on the side of the Moana Loa volcano has well over 200 contacts to stateside hams on 2 meters and 440 MHz. Other southern California hams working through the local Catalina repeater off of Los Angeles Harbor talk all the way to mobile stations just outside of Honolulu.

A few weeks later, the East Coast gets hit with hot smoggy weather, and mobile stations in Maine begin to hear repeaters in Florida come in stronger than their local repeaters. Al, NN1U, spends 45 minutes on his local repeater giving road directions to a fellow motorist, only to find out the street they were looking for was in Dade County, Florida, not Providence, Rhode Island! You can imagine the surprise of the hams down in Houston, Texas, when they hooked up with mobile stations driving down Lakeshore Drive in Illinois, while simultaneously hearing the repeater in St. Petersburg, Florida, overriding their local system just a few miles away!

Is it "skip" giving us this long-range propagation on 2 meters and 440 MHz? Nope. This has nothing to do with skywaves. Oh yes, skywaves could cause a 2-meter band opening, but the opening would probably only last for 15 or 20 minutes, and rarely go beyond 1,500 miles. We are talking about a 2-meter band opening that may last for upwards of a week, 24 hours a day, and span 2,400 miles!

It's an atmospheric phenomena called *tropospheric ducting*. Widespread high pressure systems will influence the vertical distribution of air temperature, water vapor, and air pressure which normally all decrease with height. The normal decrease of temperature, pressure, and vapor creates a "normal" refractive index for this air, represented by the symbol "N" for normal. More specifically, normal radio wave refraction in air is 1.000345. Pressure decreases with height in a logarithmic manner at about 1 millibar for every 10 meters in altitude. Temperature decreases 20 degrees Fahrenheit for every mile of increasing altitude. Water vapor also drops in a likewise manner.

When still air develops temperature inversions in layers, the thickness of the layer and the amount of temperature inversion can create what we visualize as a mirage. Take the super-heated air over the hot roadway ahead, or off to your sides in the desert. You look down and see blue. What you are

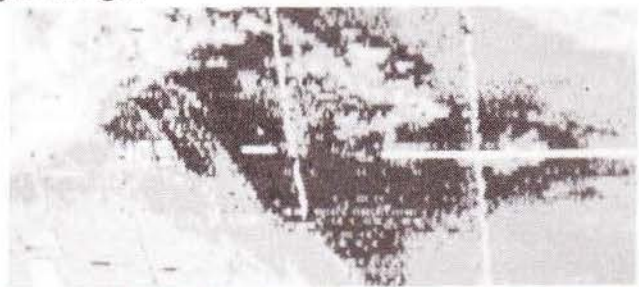
actually looking at is the sky refracted by the thin, hot-air boundary level just inches above the asphalt or sand.

When the temperature inversion occurs above you, you begin to see things on the horizon that are well beyond the normal 4/3 radio horizon. If the temperature inversion is strong enough, and the wind is absolutely still, you can sometimes see things well beyond line-of-sight range that you ordinarily could never see before. And what's most interesting is these objects that you see on the horizon may appear upside down!

There continues to be reports throughout the world during local summer months of intense high pressure tropo ducting that the locals see things on the horizon that they've never seen before. Small islands 300 miles away all of a sudden become visible on the horizon. Ships 300 miles out from port can see shimmering city lights as if they were only 10 miles out. There are even bizarre reports of entire cities disappearing from view as mariners get closer and closer to the harbor entrance. Pockets of super refractive air create mirror-like conditions that block the normal line-of-sight view and show nothing more than the sky above.

Did you ever wonder why lights twinkle on a hot night in the summer? That's the wind disturbing the normal refractive index of air.

Radio tropospheric ducting normally occurs over large bodies of water. The best known path is between California and Hawaii where a summertime high pressure system sits directly over the 2,400 mile stretch of water. High pressure air creates a subsidence inversion when this heavy air begins to drop down in altitude. When you compress air, it gets warm. Remember the tire pump? And when this warm compressed air bottoms out around 1,000 feet, it overlies cool air below it. Starting from the ocean up, you have 75 degree ocean and surface air, 85 degree air in an inversion about 1,000 feet up, and then colder and dryer air higher and higher. It's within the tropospheric duct that VHF and UHF frequencies travel with little attenuation in signal strength.



Tropo conditions between California and Hawaii lasted for two weeks this past July. WEFAX photo courtesy the author.

In the 1960's, the Navy conducted an experiment that they called "Project Tradewinds III" between San Diego,

California, and Opana, Hawaii. The purpose of this project was to evaluate the propagation characteristics of the duct formed by the tradewinds inversion which is generally found in this region. Two frequencies, 220 MHz and 445 MHz, were used, and data concerning signal strength versus range from each terminal, height gain data of several points in the path, as well as the gross meteorological notions which prevailed over the path were taken. These findings are now beginning to surface, and it's remarkable to see how local weather conditions can dramatically influence your day-to-day VHF and UHF operation.

Take for instance the many hams who experimented with amateur television on UHF, and said that there was absolutely no way an ATV signal at 100 watts could ever make it over such a path. This past July, a color ATV signal from the KH6HME beacon station came in with such intensity that only the photo with this article can do justice to the fact that anything is possible during the tropospheric duct.



This past July an ATV signal transmitted by KH6HME in Hawaii was so intense that at times a full color picture could be seen. Photo courtesy the author.

Predicting tropospheric ducting may lead you to a fascinating study of weather. You will see long-haul VHF and UHF tropospheric paths opening up almost always during local summertime, and between two points that are both covered by the high pressure system. You can sometimes see tropo openings in the presence of slow-moving storm fronts, too. And for Southern California hams, the tropo duct between California and Hawaii always seem to open with the occurrence of hurricanes sending up warm, moist air from the south. Amateur operators are not in agreement that it takes a hurricane to trigger a tropo duct, but in looking at the tropo figures for the past 10 years, 72 percent occurred during periods of hurricane activity to the south. However, *all* occurred with a high pressure system to the north holding steady.

You can easily hear and see tropospheric ducting by simply tuning into unused television channels on an outside TV antenna. When you added cable to your shack, hopefully you didn't take down the outside antenna, right? When you begin seeing stations on normally all-snow channels, tropo ducting is forming up. Try your FM receiver and look for stereo stations in places where normally there is nothing but hash. Now dial up 2 meters, and chances are the band will be filled with activity from distant repeaters hundreds of miles away.

When signals are just beginning to come in on tropospheric ducting, the advantage is certainly there with a multi-mode CW/single-sideband, 2-meter transceivers in the SSB weak signal mode. Listen for propagational beacons at the bottom of the band. But as conditions begin to improve, switch over to FM, and see what you can hear.

It has been found that tropospheric ducting almost always retains the same polarization through the duct. For weak signals CW and SSB, VHF and UHF enthusiasts use horizontal polarization. For FM, everything is vertical. You won't hear much weak signal SSB reception off of that dual-band vertical. But when FM comes in, your dual-band vertical on the roof or on your mobile will do just fine!

The popular amateur radio magazines, like *CQ*, *QST*, and *73 Magazine*, almost always have articles about tropospheric ducting on the VHF and UHF bands in their spring issues. There are excellent textbooks available on the dynamics of tropospheric ducting and long-range microwave communications. These are all excellent reading, but still boil down to the tropo duct normally forming up during the summer and fall months in the presence of a high pressure system to the north, and warm tropical air to the south.

Pioneering new long-range records for your own station can be as simple as just being alert on local weather conditions, and what is out there on the bands. And when your nose begins to run, and your eyes are watering with all the trapped pollutants, that's the time to fire up the VHF and UHF set, and take a listen for what's out there down below your squelch level. You could very well be surprised to hear stations coming in hundreds of miles away.

73 de Gordo, WB6NOA

For further reading:

1. "The Weather That Brings VHF DX"
Pocock, E., W3EP
May, 1983 *QST*
2. "VHF Propagation and Meteorology"
Miller, R.W., VE3CIE
March, 1984 *QST*
3. "Tropo Time is Now"
West, G., WB6NOA
July, 1991 *73 Magazine*
4. "Amateur Radio and Meteorology Go Hand in Hand"
Bacon, J., G3YLA
Winter, 1991 *Communications Quarterly*
5. *VHF Handbook*
William Orr, W6SAI
Radio Amateur Callbook
6. "Propagation Through an Elevated Duct: Tradewinds III"
Guinard, Naval Research Laboratory, Washington, DC
7. "Propagation"
RSGB VHF/UHF Manual
8. *The VHF "How To" Book*
Joe Lynch, N6CL
CQ Communications

Chapter 49 Runs National Kidney Foundation Special Events Station

By: Vince Hrabosky, KE4DYX

Atlanta Chapter 49 proudly supports the National Kidney Foundation of Georgia which holds an annual "camp" for young persons. This year, we invited a young "up-and-coming and definitely a potential HFer" to assist us, hoping he would be an example to the young kids and better communicate with them. Vince Hrabosky, KE4DYX, did an excellent job which we feel will result in three new amateurs joining our ranks! Vince will join our ranks in 25 years! Below is an article he shared with us giving his feelings regarding his first "Special Event Ham Radio exhibit/station."—Jud Watley, W4NZJ, President, Chapter 49

How do you introduce radio to children of all ages, go out on an event similar to Field Day, and somehow out of all of the mess you've created you'll learn something? The answer: Help out with a special event day!

I'm a Technician No-Coder, not to mention only 15 years old, and I have a fascination with HF. I was able to operate it during Field Day, but that wasn't enough. Currently, I still pound away at trying to learn the code, but that really wasn't enough to satisfy my craving to make a contact with someone outside the US.

When I heard that the Rutledge Special Event Day was going to work HF, I had to go along. Jud, W4NZJ, was kind enough to supply me with transportation on July 7, to Camp Independence. This camp, located near Rutledge, GA, is dedicated to children who are in need of, or have already had, kidney transplants.

We started out early, and picked up several other fellow Amateurs that joined our little convoy of cars and trucks with antennas along I-20 and headed towards Rutledge. They were Arnold Solomon, KC4ZUA, Bill Plage, W4DQT, and Bill Kendrick, N4YCC. I had never seen a camp of this size that could accommodate children in wheelchairs, yet, allow all these campers to swim in a pool, horse back ride along trails, and even boat along a small lake.

We setup our antennas, which consisted of a 2-meter beam, a 2-meter 5/8 wave magnetic mount stuck upside-down onto a metal support, and an HF dipole setup for several bands. Soon, our radios were also up and working on a table which rested inside a building used for events such as basket ball. I was very surprised to hear people calling us soon after I flipped on the 2-meter radio! Arnold manned a small packet station, Jud had his hands glued to the HF rig, and I was assigned the 2-meter voice. It wasn't long before children ranging in the ages of 6 to 18 began to wonder what these crazy people with popping, crackling, and whistling radios were doing here at their camp.

They soon gathered around to listen in.

As part of the demonstration, I began to walk along the trails with my 2-meter HT, talking to people back at the station about how many fish they had caught, what they thought of the camp, and the upcoming carnival that they were hoping wouldn't be ruined by the predicted rain. (Some of these children had more confidence than me to get on the radio!) It wasn't long before Bill, N4YCC, walked the paths, and hid with his HT, while I and several others hunted him down with a fox-hunting outfit that Arnold supplied.

Upon finding him, we swapped places, and allowed him to try to find us. I've never gotten stranger looks from anyone in my life, as people watched us walking the trails with an antenna that we rotated, a radio that gave a changing tone, and all the time people with my group saying "Maybe he's over there..." or "He could be hiding behind there..." The fox hunt ended, with tired and over-heated people. Everyone said they had a great time, despite the looks people gave us.



Although rains dampened activity at this year's National Kidney Foundation's "Camp Independence." The Chapter 49 coordinated Amateur Radio station demonstration brightened things for many kids. ARRL supplied many handouts for dissemination to the kids.

On the right is author Vince Hrabosky, KE4DYX, who is demonstrating HF/VHF operations to several young visitors.

Photo courtesy W4NZJ.

The rain then began to fall, and the equipment had to be covered to protect it from the moisture. I began to wonder if we weren't about to be flooded by the downpours that seemed to last forever! Surviving on a dinner of peanut-butter crackers, and Jud occasionally soaking us with his water-gun, we continued to call for stations, all the while trying to explain to people what we were doing. Never have I seen such happy, or delighted children when they heard someone talking back to them. I'll say it right now, I did not make many contacts on the radio at all, I really didn't even touch HF during this event, but it was fulfilling enough to see people become so interested and so delighted at talking to someone on the radios we brought. We even had several that wanted to start studying right then and there for their test!

After it was all over, the dismantling of the antennas, the disconnection of power cables, and the boxing up of radios, we were all ready for a good long night's sleep.

I would recommend participating in this type of special event to everyone, because it is great to help others and recruits other people interested in this wonderful hobby of ours. The stress you have to put up with are great: Trying to get that antenna to point in the right direction, trying to figure out what is causing interference to your radio (only to discover that it's the person's radio next to you that's doing it!), and trying to explain to a kid why we can't let him talk to AM 750. Get out there and try it! I guarantee you'll enjoy it and receive something wonderful in return!

The Making of AMSAT's New Phase 3-D Video

By: Bill Tynan, W3XO, President, AMSAT-NA, and Keith C. Baker, KB1SF, AMSAT-NA Public Relations.

Along with the technical job of designing and building the Phase 3-D satellite goes another, equally challenging, yet no less important task. That task is raising the necessary funds to enable completion and launch of the spacecraft. Spell that: *publicity!*

Very early in the Phase 3-D program, the importance of this daunting task became painfully apparent to the AMSAT leadership at the time. So, back in 1991, a series of discussions ("brainstorming sessions") were conducted by the then AMSAT President Doug Loughmiller, KO5I, along with the current AMSAT President, Bill Tynan, W3XO. These two gentlemen were soon joined by Roy Neal, K6DUE and Bill Pasternak, WA6ITF (of Westlink fame). Their overall goal was to develop a strategy to insure the necessary resources would be available to bring the Phase 3-D program to fruition.

Out of these sessions came a number of ideas for bringing the Phase 3-D project to the attention of Hams and others who might be persuaded to lend their financial support. One of Bill Pasternak's suggestions included the production of a video tape that could be played at hamfests and other Amateur Radio (as well as non-amateur) gatherings. An added benefit of this approach was that the video could also be used to help generate interest in the program (and, hopefully, stimulate *donations*) from both corporations and foundation officials.

These initial discussions led to more concrete proposals. Bill Pasternak suggested that retired Senator Barry Goldwater, K7UGA, would be an excellent spokesperson for the program. Roy Neal, K6DUE, an accomplished NBC Television Network professional, having just retired from the network a few years ago where he specialized in covering science and space events, volunteered to be the video's host. This would be particularly useful, as many Hams are already familiar with the outstanding series of videos hosted by Roy on the various facets of Amateur Radio, including the SAREX program.

During a January 1992 visit with Senator Goldwater at his Scottsdale, Arizona home, Doug Loughmiller and Bill Tynan were able to secure his both eager and gracious offer to participate. This event set the stage for actual taping to begin in the Summer of 1992.

As this effort was going on, another key ingredient of the publicity project was coming together in Florida. It involved the construction of a one quarter scale model of the Phase 3-D spacecraft by Stan Wood, WA4NFY. The results of Stan's superb handiwork provided an outstanding

representation of the spacecraft that was later shipped to Scottsdale for use as one of the centerpieces of the video...and just in time for the initial "takes." Charlie Justiniak, W7GBI, an AMSAT member who resides in Scottsdale, volunteered to receive the model as well as do some of the other legwork involved with setting up the "shoot."

Bill Pasternak donated his expertise as Producer/Director for the production and also enlisted the aid of Forrest Oden, N6ENV, to handle the myriad of technical details. In addition, Bill secured the services of Joe Schroeder, W9JUV, the former Editor of "HR Report," to assist in the production.

The result was a superb video production that was successfully used at a number of functions and fund-raising activities. However, soon after the tape's final release, an announcement by the European Space Agency that Phase 3-D, as then designed, had no hope of being launched. This unfortunate turn of events caused a major re-design of the spacecraft's structure. It also meant that much of the original video the team had obtained with Senator Goldwater was now hopelessly out of date!

However, rather than mourn the loss of a very valuable fund raising tool, the Phase 3-D publicity team set to work to bring the old video in line with the then emerging design of Phase 3-D.

Stan Wood agreed to construct an updated version of the Phase 3-D model. This was no small feat, in that Stan eventually went through not one, but several preliminary spacecraft models as the re-designed Phase 3-D configuration evolved. Next, Senator Goldwater agreed to a "re shoot" of updated video at his Scottsdale ham shack, and Roy Neal offered to provide an updated audio track to match the new video frames.

The new Phase 3-D video is now completed and ready for distribution to QCWA chapters. It includes a greeting which Barry recorded especially for QCWA members. To learn how to obtain a copy for your next chapter meeting, contact Jim Walsh, W7LVN, at QCWA Headquarters, 159 E. 16th Ave., Eugene, OR 97401-4017; phone 503-683-0987, fax 503-683-4181.

73 de Bill Tynan, W3XO, and Keith Baker, KB1SF.

Editor's note: This article originally appeared in the January/February issue of the AMSAT Journal. It appears here with a slight rewrite pertaining to QCWA courtesy the AMSAT Journal and AMSAT-NA.

QCWA JOURNAL Reviews: The MFJ-249 HF/VHF SWR Analyzer

By: Lew McCoy, W1ICP, 1500 W. Idaho St., Silver City, NM 88061

I have had the good fortune to be testing this unit for several months and I have to state at the outset—it is really a nice piece of test equipment.

Essentially, the '249 consists of a very accurate frequency counter that covers, in six band/steps, from 1.8 MHz through 170 MHz. This, in conjunction with a built-in SWR detector circuit, can be used to measure the SWR of an antenna system. I have a multi-band beam that works from 40 through 10 meters. I connected the MFJ-249 to the beam via the coax I normally use for transmitting. The '249 is calibrated in SWR so by slowly tuning the TUNE knob to cover the various band/frequency ranges, I watched can the SWR drop down at each resonant point.

The meter is calibrated so that an SWR of 1 to 1 is at zero, graduated up to half scale which is 2 to 1, and 3/4 scale is 3 to 1 with infinity as full scale. In these days of rigs that shutoff when the SWR approaches 2 to 1, it is immediately apparent that considerable thought went into the design of the SWR readings. If your antenna feed system with coax is not below 2 to 1, you better fix the system.

I tested the LED frequency counter readout and it appears to be extremely accurate. It reads out to tenths of a kilohertz—in other words, 14,222.5 kHz. It does this on all bands. I checked the counter against a known standard (WWV) on several bands and the readouts checked to within the proverbial gnat's eyebrow. The LED readout numbers are slightly more than

1/4 inch high and the counter is very easy to read in bright sunlight as for example if one was working outside, tuning up a beam or other antenna.

Additionally the '249 serves as a frequency counter. To switch from the SWR bridge to frequency counter merely means turning the unit on, via a button on the top, then pushing another button also on the top which puts one in the counter mode. There is a jack mounted on the top to take a counter pick up antenna (I used a straightened out paper clip!). MFJ recommends the use of a times one probe as the sensitivity of the counter is on the order of 600 mV.

The six bands of coverage, in megahertz, are first, 1.8 to 4, 4 to 10, 10 to 26.2, 26.2 to 62.5, 62.5 to 113, and 133 to 170 MHz. Of course, the SWR analyzer can be used to adjust Transmatches. MFJ makes a switch, the MFJ-1702, which connects between your rig and tuner or the analyzer. Simply tune the analyzer to the desired frequency and then adjust the Transmatch so that you have a one to one SWR reading.

One last point: There is an excellent article in *QST* in the November 1993 issue that tells you how to make a small pickup coil that converts this instrument into a very fine and very accurate dip meter.

The cost of the MFJ-249 is \$199.95 and is manufactured by MFJ Enterprises Inc., 921 Louisville Rd., Starkville, MS 39759.

Have You Done a Good Turn Lately?

By: Dan Dansby, W5URI, Trustee, K2BSA

Many of you were Scouts while growing up and most learned the Morse Code to pass the First Class Scout requirement for communications. Some went on to pass the Radio Merit Badge.

Remember winding the coil on a Quaker Oats oatmeal box and hooking up a crystal and cat whisker to hear one or two local radio stations? Those were the "Good Old Days." Radio was King then. Oh! TV had been invented. I remember Mother, returning from the Chicago World's Fair and talking about being on TV and how Dilinger was shot just around the corner from the Hotel she was staying and she didn't know about it until she read it in the papers the next morning. Those were the "Good Old Days?" However, we must agree, "Radio was King" then.

Now, once a year, Radio becomes King again for the Scouts and Girl Guides of the World. On the 3rd weekend of October, Scouts, Girl Scouts, Venturers, Explorers, and Rovers gather on the air via Amateur Radio to say "Hello" and exchange greetings around the world.

This is where QCWA comes in.

You as a QCWA member can invite young people of scout age to join you in your Ham Shack to talk to other young people. It may be your grandchildren or the neighbor's children or the local Cub Scout Den or Scout Patrol. Introduce them to the Wonderful World of Amateur Radio. Have *you* done your "good turn" today? Just how many days are you behind on "good turns?"

There are about 126 Scouting Countries around the world and more are applying daily since the end of the "Cold War." About 80 percent will participate in JOTA. Our objective is to provide as many kids in the US as possible the opportunity to participate in JOTA and make radio King again, if only for a weekend.

Set aside October 15-16, 1994 to do your good turn and invite the kids into your Ham Shack. However, don't forget to send them home when the event is over.

If you would like more information, write Boy Scouts of America, International Division, S-221, P. O. Box 1520789, Irving, TX 75015-2079. Ask for the JOTA Fact Sheet. You might mention my name so they know that I'm still working.

73 es GUD Scouting de Dan Dansby, W5URI.

Maverick Chapter Report

(Editor's note: Your editor was invited to the picnic described below. However, included in the invitation was a notice that I was going to be put in the Circle of Fire and asked to explain why I didn't included their previous Chapter report. I declined the invitation and chose to give their Chapter report a special position right under Dan's announcement about the JOTA. I hope this keeps me out of the next Circle of Fire, hi.—Ed.)

Chapter 72, Ft Worth: In Keeping with a long standing custom, the Chapter's annual picnic was a huge success. Again it was held at the QTH of Ray and Betty Hennington, W5IWE. The Dallas and Tyler Chapters, along with many QCWA members not affiliated with

chapters in North Texas were our invited guests. W5AAC told about hitch hiking from his home in Sulphuric (Sulfur) Springs to the West Gulf Convention in Ft Worth at the Blackstone Hotel in 1932. Keith Pugh, W5IU, told about his air tour of 21 days to Alaska with a group of ten planes. A few of the old hands couldn't make it but we added ten members as first timers at the picnic. This was the first meeting of the Officers since being installed. Jordan Jones, W5CF, retired Captain from Continental Airlines, is president. W. W. "Dan" Dansby, W5URI, retired from Texas Utilities, is the Secretary-Treasurer.

Respectfully submitted, Dan Dansby, W5URI, Secretary-Treasurer.

QCWA Scholarship Funds Grow

The QCWA Board of Directors at its Spring meeting at Tyson's Corner, Virginia, established a goal of \$150,000 for the Fund by the Spring 1995 Board meeting. As reported in the Summer *JOURNAL*, contributions were at the \$116,000 level. We are happy to report that they now are above \$124,000.

The winners of this year's scholarships are named elsewhere in this issue. It is through your generous giving that these students were winners. And we all are winners when we support our youth through the QCWA Scholarship Program.

In order to keep this program going, please remember your friends who become Silent Keys by making contributions to the Fund in their memory. A number of members and Chapters regularly make contributions. It is the wish of the Board of Directors that more members and Chapters to support the program with regular contributions.

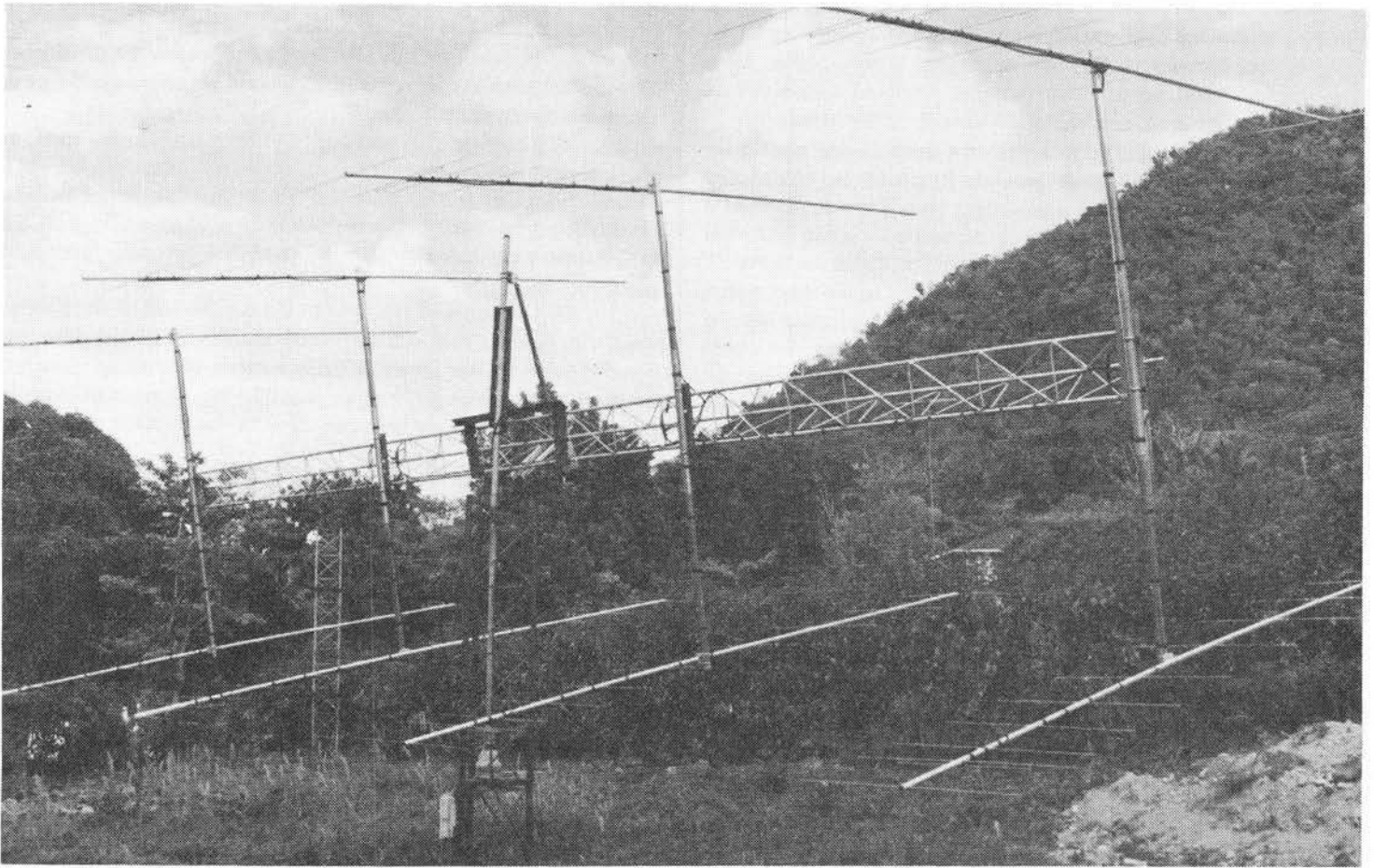
All contributions to the Memorial Scholarship Fund and to the Building Fund should be mailed directly to QCWA General Manager, Jim Walsh, W7LVN, 159 East 16th Avenue, Eugene, OR 97401.

Thank you very much for your support of the QCWA Scholarship Program.

QCWA Scholarship Fund Goal



EME From Montserrat—Texas Style



This 2-meter EME array was built and assembled at the QTH of VP2MR by the authors. It consists of eight 10-element K5GW designed Yagis on 17-foot booms in a 4-over-4 configuration. Photo courtesy the authors.

By: Perry Brittain, W5STI/VP2MR, and Gerald Williamson, K5GW/VP2MGW, 1108 Summit Avenue, Suite 4, Plano, TX 75074

In January 1993 an Earth-Moon-Earth QSO was completed between Montserrat and the States. Believed to be a first, those signals were exchanged between the huge array of long-time VHFer Dave Blaschke, W5UN, and a relatively primitive four Yagi array with the call VP2MBM, located in a circular clearing hacked out of the jungle. The Montserrat station was the result of an EME expedition combined with a long awaited vacation visit by Gerald and his wife, Joan to friends Perry and his wife Martha on the beautiful little island of Montserrat.

Martha's call, VP2 Moon Bounce Montserrat, was too coincidental to ignore, so it became the ID for that first shaky, manually rotated and elevated installation. The erection and operation of VP2MBM was filled with adventure and misadventure! That story has been previously chronicled in an article that Perry wrote for *QST*, titled "Moonbeams on Montserrat" (June 1994).

Suffice it to say here that in spite of windstorms, blown pre amps, and the onerous burden of manual azimuth-elevation control with the attendant skinned shins and pointing errors, the expedition was great fun. The results were also encouraging. A surprising number of stations were worked, and post operation discussions

revealed that many more stations heard VP2MBM than were heard by the expedition.

For Gerald, who is an old hand at moonbounce, this whole thing brought back the excitement of the challenge of the old days of crystal controlled CW rigs, when the difficulty of making a QSO left a feeling of elation when one was in the log! The bug had bitten! After the EME expedition visit was over, Perry and Gerald started planning an eight Yagi array that could be installed at the VP2MR QTH. It had to be simplistic enough in structural design that a nearby machine shop and a Home Depot do-it-yourself hardware store were not essential. And it had to be planned in enough detail that all essential items could be identified and located locally or shipped from the States. There also is not a radio supply house in downtown Plymouth, Montserrat!

After Gerald's return to the states, discussions continued via faxes and HF QSOs. The discussions turned to detail during Perry's spring visit to the states and a joint trip to the Dayton hamfest where the flea-market was combed for connectors, adapters, coax relays and other essentials (with the usual assortment of non-essentials, also). The following general plan evolved:

- The antenna configuration would be four-over-four 10-element Yagis on 17-foot booms. The four-over-four arrangement was the result of a generous windfall. Bobby Martin, VP2MO, had helped and kitted during assembly of the first EME expedition antenna and offered four eight-foot sections of 12" face aluminum tower—perfect for a horizontal boom to support the proposed four-over-four configuration, and best of all, already on the island!
- The array would be mounted on a free-standing steel tower about 12 feet above ground. It would be constructed locally, and include a mounting plate for a rotator and a simple sleeve journal bearing at the top for a two inch steel mast to extend about six additional feet above the tower.
- The horizontal boom would be attached to the mast with a simple hinge arrangement to avoid a complicated bearing construction for elevation. A TVRO linear actuator would be used to elevate the unhinged side of the horizontal boom. The weight to be lifted was estimated to be easily within the rating of an actuator.
- Until a better feedline could be obtained and shipped to Montserrat, half-inch CATV hardline would be installed between the antenna and the shack. (The actual piece of cable was salvaged off the ground after the local cable company rebuilt, months after hurricane Hugo hit in 1989.) The same cable would be used for transmit and receive, and the receive pre amp would be located at the tower.
- Control circuitry would be arranged for semi break-in keying—i.e. "push to talk" sequencing for transmit/receive, with near foolproof pre amp protection on transmit. (That sinking feeling when it appears that a pre amp may be fried is *very* pronounced when repair or replacement is a couple of thousand miles away!)

With these general guidelines established it was agreed that Gerald would proceed with Yagi design, including stacking and the analysis of expected gain and radiation patterns, and would construct power dividers and phasing harness. Back on Montserrat, Perry would proceed with fabrication and installation of the tower, complete with a substantial concrete foundation (no small task in the absence of a transit-mix company or even a mixer), and proceed to devise the hinged fixture and the elevation configuration for the horizontal boom. This last chore included building and housing a suitable power supply/metering arrangement to provide control of the elevation actuator with accurate remote elevation indication. The target was to have all in readiness to put the antennas on the boom and operate during the January EME activity period. This would result in about a one year interval between the first and the second EME expedition to Montserrat

The K5GW 2-Meter Ten-Element Yagi

The Yagi antennas themselves were already designed and had undergone extensive testing. Computer programs such as Yagimax by K4VX and YO by K6STI have revolutionized amateur VHF Yagi antenna designs. Yagimax in particular, was a breakthrough because it allowed analysis of arrays of stacked Yagis. Good performance of a beam requires low side lobe levels. Now it is possible to see almost instantly the overall pattern of a system and the effect of different individual designs and stacking dimensions.

The K5GW 10-element Yagi was specifically designed for the lowest possible side lobes consistent with good gain. Incidentally, the gain and VSWR bandwidth both turned out to be extremely broad, a real plus in any design, making construction tolerances much less critical. Initial computer plots had an astonishing E-plane first side lobe level 22 dB below the main lobe! This did not seem consistent with real-world experience and was at first viewed with skepticism.

A prototype Yagi was built and extensively range tested to check computer predictions. The range tests produced azimuth plots virtually identical to the computer plots! Another prototype was quickly built to check computer stacking predictions. Again, the range tests were virtually identical with the computer generated plots.

A few hours of listening to the bottom end of the 2-meter band with the two Yagi stacked prototype antennas provided the real proof of performance; fifteen different stations were easily identified on moonbounce with solid copy! W5UN's big signal was actually measured at 16db above the noise floor of the FT1000 peak audio filter!

Through these range tests, confidence in the computer Yagi design software was firmly established. After construction of several stacking configurations—from the one-over-one, then two-over-two, through the VP2MR four-over-four and on up to the K5GW eight-by-six—from 2 ten-element to 48 ten-element Yagis, confidence in the design software remains high.

(The overall message here is that you, too, can have the tremendous satisfaction of designing and building your own high performance VHF Yagi array. The computer software *works*, and antenna construction materials are readily available from advertisers in most ham publications. The cost of a home-made system is about one half to one third the cost of ready-made materials and could actually out perform them.)

Four Over Four Phasing and Power Dividers

Not a lot of "how-to" articles have been written in amateur radio literature about constructing the power dividers and phasing for multiple Yagi arrays. Most builders purchase ready-made 2-way or 4-way RF power dividers for the band of interest, make up the required number of coaxial cables to connect everything together and tape them up hopefully to keep out the rain.

In practice this works fine and certainly is a quick way to get the job done. There is a great opportunity though, for any VHF DXer to enjoy the immense satisfaction of home building this part of the array (and saving a bundle of hard earned cash in the process).

The needed power dividers can easily be constructed with pieces of coaxial cable and connectors. The dividers can be made of such length that they perform the dual function of power division and phasing line, often eliminating several connectors and associated cost, losses, and water invasion problems.

In the VP2MR eight-Yagi array, for example, the main two-way power divider was constructed of salvaged 75 Ω CATV hardline and was of proper length to reach the center of the 2 four-bay Yagi groups. At the center of each four-bay group, a four-way power divider was connected directly to the end of the 75 Ω main two-way divider. The two four-way dividers were constructed of RG 213 coaxial cable, four N-type male connectors and three N-type tee connectors—simplicity itself!

The four-way dividers were made $\frac{1}{4}$ -wavelength long and each end fed two of the ten-element Yagis through a 12-foot length of RG 213 coaxial cable, completing the phasing system. The antennas were designed to connect to the phasing system through direct connection via solder lugs on the RG 213 shield and center conductor. The coax ends were waterproofed with a liberal application of hot-melt glue.

While this method may sound a bit agricultural in nature, it works extremely well, is quick and easy, and the VSWR is under 1.05:1 at 144 MHz. The 480-element K5GW EME system was built using this technique and has never suffered water invasion in this part of the system. (There have been water problems in other parts of the system, the solution being the subject of a future article.)

The trick to building a well performing home-made phasing system is careful measurement of the electrical length of each part. This is not difficult and is also the subject of another future article. (If you can't wait, contact Gerald at the above address for more information on this subject.)

Structural Details of the VP2MR Array

The free-standing triangular tower was fabricated locally on Montserrat (read that as "home made"). The legs are standard galvanized steel $1\frac{1}{4}$ " pipe with $\frac{1}{2}$ " rebar lacing. Faces of the tower are about 21 inches wide. The tower itself is ten feet in length, and stands about eleven feet above the ground including stub angles and the concrete foundation.

The original "circular clearing" for the 4-Yagi array, located in the tropical undergrowth on an undeveloped tract next door to the VP2MR QTH, had to be enlarged considerably to accommodate the turning radius of the new array. That considerable chore was expanded far beyond the new antenna requirement after a suggestion by wife, Martha, that additional vacant space, if also cleared, would permit the installation of a vegetable garden and a shade-house/potting shed for starting the various cuttings needed in the flower gardens.

These much needed additions were constructed right along with the corresponding phases of the EME array, and the completed garden addition is now known as "Martha's Antenna." (Such pragmatic solutions to non-technical political issues that invade the hobby can often be resolved by careful negotiation.)

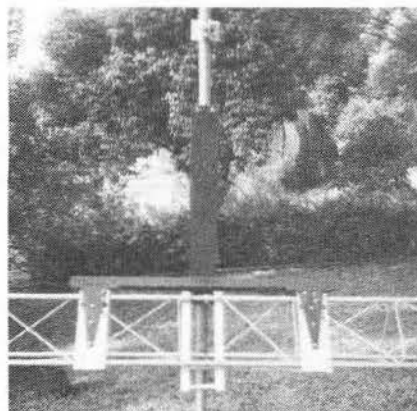
The attachment of the horizontal tower-boom to the mast, without resorting to expensive, custom bearings to permit elevation changes, was solved in a very simple, forthright manner. During discussions of various possible methods of hinging the boom to the mast, Gerald said, "Why not use hinges?"

The final solution was an inverted "T" made of scrap steel angle with the vertical section attached to the mast with heavy duty muffler clamps, and "barn door" hinges welded to the horizontal angle. The other end of the hinges are bolted to brackets which are, in turn, attached with U-bolts to the face of the horizontal boom.

Brackets for attachment of the actuator to the boom leg were fabricated from light aluminum angle. A loose-fit piece of tubing over the $\frac{3}{4}$ " bolt to which the actuator is attached permits the bolt to turn within the attachment as the actuator lifts or lowers the tower leg to effect elevation changes. It is a very simple arrangement, and operates very smoothly, without looseness or "slop."

Control and metering of the actuator position was accomplished by converting an old Ham-M control box. For operation of the actuator motor, a bridge rectifier was added, using

the transformer that had supplied 26 volts AC for the Ham-M rotator motor, resulting in about 25 volts DC (unfiltered) to the actuator motor. The resulting speed is just about right, but there is



Ground-level mockup of the horizontal boom attachment—an inverted "T" with hinges welded to the horizontal piece. Photo courtesy the authors.

considerable receiver noise during actuator movement. This is a minor problem, but trying a filter on this DC supply is on the list of fixture modifications.

The original potentiometer circuit in the Ham-M controller was used with minor changes. The actuator has a 10 k Ω linear pot for position indication, and the original bridge circuit gave almost full scale deflection for 0° to 90° elevation changes. The original meter face was changed to read elevation degrees.

During the early development of the meter graduations, a jury-rigged "inclinometer" was attached to the horizontal boom. This was very helpful in judging the optimum position for each end of the actuator, the range of motion attainable with the actuator, and the effect of the non-linearity in the motion path of the end of the actuator attached to the boom.



An "inclinometer," made from an empty weed eater spool and a half-inch steel ball, used to check optimum range of elevation change vs actuator travel and elevation meter range and graduations. Photo courtesy the authors.

Final graduation of the elevation meter face was corrected after completion of the array by visually "sighting-in" over the entire scale using W5UN's "SKYMOON", the computer tracking program to be used in operation. A late modification was the addition of a voltage regulator in the potentiometer power supply to

prevent meter fluctuation caused by voltage dips on the local commercial power system.

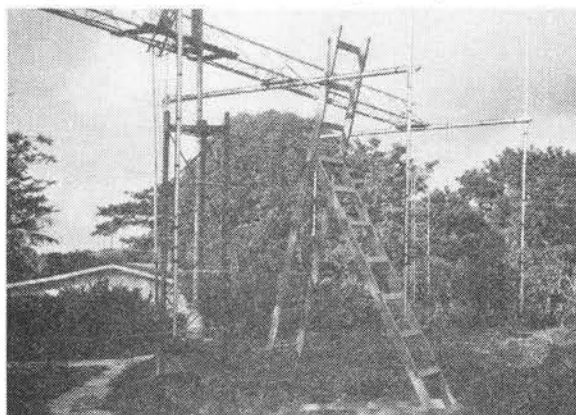
Final Assembly and Initial Operation

Gerald and Joan arrived on island Sunday evening, January 23rd, with the eight Yagi beams and enough 2" aluminum tubing for 4 ten-foot vertical booms, all packed in two 6" x 6" by six-foot boxes checked as luggage. Power dividers were in their "real" luggage. (They also brought brass grommets for attaching the shade cloth to the roof frames in the shade house/potting shed (Martha's Antenna). It, too, was nearing completion!)

Monday morning the final construction steps were outlined. The tower was in place, complete with azimuth rotator and mast; all control cables and the hardline were installed and ready for connection. The horizontal boom had the actuator brackets attached, and brackets for the hinge connections and the vertical booms were in place.

The vertical booms were assembled and attached and power dividers and feed lines were routed. Water-proofing was carefully applied to each connection in the assembly. This is an absolute necessity in this wet, tropical climate. (Actually, it's probably a necessity anywhere.) All coax connections at VP2MR are wrapped with highly stretched self-curing rubber splicing tape to fill all voids, coated with Scotchkote type sealer, wrapped again with vinyl tape for another layer of ultra-violet protection, and coated again with Scotchkote. This takes a lot of time but it's worth it.

Incidentally, for your own installation, it is a great idea to check all the connections for continuity and short circuits *before* applying the water proofing! This last suggestion was not followed on the power dividers, and a check after water proofing disclosed a short! The problem was in a *new* N-type tee connector! This was located by checking DC resistance from both ends of the cable assembly, and only two of the splices were opened—the center splice and the offending connector. This could easily have been a delay of a full day, but with a little discussion to think through a methodology and a lot of luck, it was only a delay of a few hours.



A homemade step ladder, secured laterally with rope, was used to attach the beams and route and connect the phasing lines. The beams are at 90 degrees, i.e. straight up. Photo courtesy the authors.

The assembly, complete except for the beams, was lifted into place, the actuator attached and the whole thing rotated into the 90° position. Gerald alone had assembled all eight of the beams while the power dividers were being positioned and water proofed, and the beams were attached and aligned as the last assembly step.

A substantial step ladder, guyed laterally with rope, was used in the assembly.

With the antenna array in place and operable, all efforts were directed toward completion of the relaying and station controls. Final checks were made Wednesday evening, after dark. And at 0320 Thursday UTC, VP2MGW worked RA3YCR on 144 MHz moonbounce! The station was now ready for schedules.

Many EMEers were aware of this operation, and had signed up for schedules via the 20 meter net for 2 meter EME. (This net meets on Saturday and Sunday on 14.345 MHz about 1730 UTC at the conclusion of a similar 70cm net.) Net controller Lionel, VE7BQH, had faxed to Montserrat a list of 28 stations with scheduled times, and 21 additional stations that would be seeking random contacts. Lionel had concluded his fax to Gerald with the sentences, "DO NOT COME BACK UNTIL YOU HAVE WORKED THEM ALL! GOOD LUCK TO YOU AND PERRY."

This was the January 1994 activity weekend, and conditions were as good as expected. The station performed beyond expectations! Forty-nine stations were worked—coincidentally the exact number on Lionel's list. Unfortunately, the list and the log were not identical. Sixteen of the twenty-eight scheduled were worked. Thirty-three stations were worked random. At times it was chaotic! Many stations ignored the schedules. The old HF axiom that the DX station controls the pileup is not applicable here—an eight-Yagi EME station cannot control sequenced schedules when larger stations elbow their way in! It is a problem worthy of discussion by the EME fraternity.

Post Operation Assessment

By any measure the operation was a success. Reviewing the station performance piece by piece, no changes are planned for the antenna array itself. It works! Virtually all of the contacts were made without visual moon contact, and it is felt that the aiming accuracy is quite adequate.

A loss analysis of the system shows that replacement of the CATV hardline with 7/8" hardline, along with the upgrading of two of the longer RG 213 cables will reduce losses more than one dB, and these changes will be made.

All in all, the system is considered very good as it now stands. Structurally, it "sits well" in the gusty tropical winds. Perry is now equipped to make schedules (hopefully including those who missed Gerald) to add another country to many logs.

What started out to be a "shoestring" installation turned out to be a very respectable EME station. The simplicity of structural design and az-el control was a conscious concession to the relative remoteness of the location. It could even more easily be built in the states.

Look at the pieces—the home-made base tower could be one section of a Rohn 45 or equivalent, the horizontal boom could be three and a half sections of Rohn 20 or 25. The azimuth rotator could be any of the stock beam rotators, and an actuator for the elevation drive is as common as satellite dishes. And cheapest of all, barn door hinges are in nearly every hardware store!

It is hoped that the reported effectiveness of this installation will encourage more hams to tackle the formidable task of building a respectable EME array without owning a machine shop and a deep pocketbook!

73 de Perry Brittain, W5STI/VP2MR, and Gerald Williamson, K5GW/VP2MGW.

The Vietnam Memorial Wall

By: Joe Lynch, N6CL

Editor's note: This fall, as with each year, we take one day, Veterans Day, and set it aside to remember our veterans. Until the Gulf War, the most recent group of veterans were the Vietnam War vets. Not to many years ago, a memorial was constructed to honor and memorialize the sacrifice of these vets.

The Wall, as it has come to be known, has become a point of healing of the wounds of the Vietnam War for many vets and their families. Here is one story of one such healing.

Many Vietnam War veterans who journey to the Vietnam Memorial Wall in Washington, DC, do so because they want to find a sense of completion or closure even a healing for their lives. I am one of those veterans.

In a strange way I knew that someday I would be able to go to The Wall but I didn't know how or when. One of the reasons it was important for me to make the pilgrimage was that my best friend's name was engraved in the monument.

Following high school graduation in June 1965 I was looking for a job. That year President Johnson initiated the Summer Youth Program where young people from eligible families could obtain summer employment at federal and local facilities. Because I was trying to gain employment with the Department of Defense at one of the local US Navy bases in San Diego, I had my name placed on a federal job register. The employment office at North Island Naval Air Station contacted me and offered the summer job as an interim until they were able to reach my name on the register for the permanent position. I immediately accepted.

On my first day of work I met Dana Barker. He stood out immediately to me because he bowed his head and prayed before eating his lunch. I thought that we might have something in common, so I introduced myself to him. I said that I noticed that it appeared that he prayed before eating.

Without hesitation, Dana responded by announcing that he was a Christian. I told him that I too was a Christian. Soon we were comparing notes on our theological beliefs. We found that we did indeed have much in common.

Because the major requirement for qualifying for our jobs was our parents' economic background, we began making family comparisons, as well. We found that we had still more in common. Very quickly we became very good friends.

Dana often spoke of his plans to attend Prairie Bible Institute in Three Hills, Alberta, Canada. He had chosen that school because his pastor was a graduate. Dana spoke of someday becoming a minister and he thought that PBI would give him an excellent foundation. Even so, there seemed to exist a doubt in him about his calling to be a minister. Nevertheless, he had obtained his divinity school deferment from the draft board and at the end of the summer he was off to Canada to start his schooling.

During the course of the following year something happened to Dana's dream of the ministry. I will never know completely what happened. However, the effect on him was that he decided during the summer after his first year of school to join

the US Army. About the same time he and his high school sweetheart, Brenda, decided to get married.

It wasn't much longer after he joined the Army that I was drafted into the Army. Because we were both in intensive training in our military occupations in separate parts of the country, it became more difficult for us to keep in touch with each other. I was learning about telephone communications in the field and Dana was training to become a helicopter pilot.

Within six months of my initial training I was on my way to Vietnam. Because Dana's training took a while longer, he was not scheduled to go to Vietnam until sixteen months later. However, even that eventuality was postponed a couple of more weeks so he could be present for the birth of his daughter.

Dana arrived in Vietnam around the first of the year in 1969. He was assigned to a helicopter battalion in northern Vietnam. At the same time I was working at a Military Affiliated Radio System (MARS) station in southern Vietnam.

One day about six weeks after Dana had arrived in-country I decided to contact the MARS station in the city where Dana was assigned to make arrangements to talk with him over the communications network. I thought that it would be a neat way to let my old buddy know that I was thinking of him.

The operator at the station took my information about Dana and told me that he would locate Dana's phone number so that he could "patch" Dana over the radio for me to talk with him. It was about a half hour later that the operator finally called me back on the radio. With a disturbed sound in his voice, he told me to call him on the telephone.

When I reached the operator, he asked me how well I knew Dana and I replied that he was my best friend. He then told me to call a particular ward in the hospital at the military base.

Immediately I called the ward and talked with the duty nurse. She told me that Dana had been involved in an ambush, was gravely wounded and not expected to survive. She advised me to call back the next day and she would tell me the outcome of the surgery. The next day I called her and she told me that he did not make it off the operating table.

Because I knew Brenda, I requested permission through military protocol to be Dana's body escort. With very little trouble, I was granted that privilege.

In a few days I flew to Oakland, California, where I picked up Dana's body and then flew with it to San Diego. We were met by representative of the mortuary at the airport and then transported to the funeral home. After Dana's body was secured inside, I met Brenda outside and she drove me to her parent's home.

Soon after our arrival Brenda went to bed. It was then her father asked me the details of Dana's death. I had found out from subsequent conversations with my MARS operator friend that because of a lack of spare parts, the helicopter maintenance was not properly performed. On Dana's last flight his helicopter experienced a mechanical failure in the air and he was forced to land it in the middle of an ambush.

In response to Brenda's father's query, I shared all that information with him. Shaking his head, he made a remark about the senselessness of everything connected with the war and I was forced to agree with him.

A few days later, on a drizzly late morning, Dana was buried with full military honors in Fort Rosecrans National Cemetery in San Diego. Ironically, he was buried on a slope overlooking North Island Naval Air Station, the place where he and I first met.

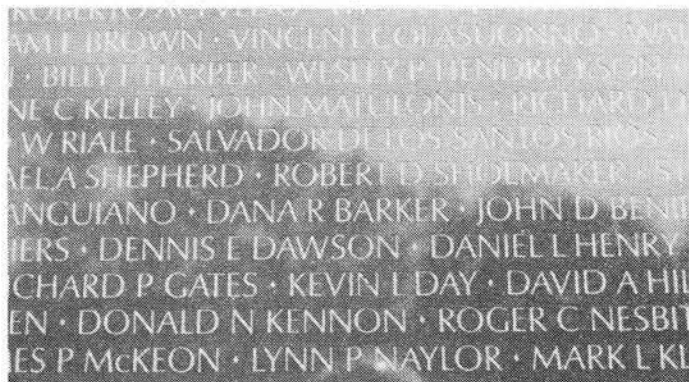
A few years ago I learned about the Vietnam Memorial and that it would contain Dana's name along with all the other men and women who died during the war. I occasionally thought about how I would like to be able to see the monument but didn't know how it could be arranged.

In the spring of 1993 my company, Lynch Communications, was contracted by QCWA to be the editor of its magazine, the *QCWA JOURNAL*. The organization's spring 1994 board meeting was to be held in Tyson's Corner, Virginia, a suburb of Washington, DC. As its magazine editor, I was invited to attend the meeting.

Upon my arrival at Dullis Airport I was met by Margaret Kelleher, the wife of one of the board members. On our way to Tyson's corner she asked me about my return flight. I told her that I was to fly back home around 3 PM on Sunday. During the course of our conversation, I also told her that this was my first trip to the Washington, DC area.

Margaret advised me that she would take me back to the airport and that we could make a quick tour through the Washington, DC area before going to the airport. It was then that I told her of my desire to visit the memorial. She replied that it would be no problem for us to go by it.

On Sunday morning, as promised, Margaret took me to the memorial. Dropping me off, she told me that she would wait for me at a nearby parking space. Bidding her good-bye for the moment, I walked down the trail leading to the memorial. My first stop was the directory where I easily found Dana's name. Then I walked over the part of the wall where his name was supposed to be inscribed. My eyes immediately fell on "Dana R. Barker."



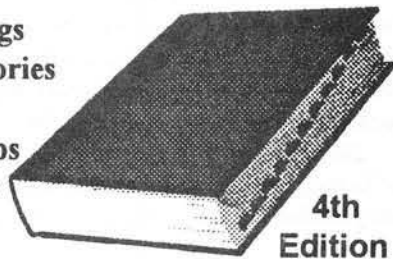
I found Dana's name enscribed among the other 55,000 plus names on the wall.

For a moment I stared at Dana's name. All the other names went out of focus. Then I reached out and touched the engraving. I felt each of the letters of his name, one at a time as they moved under my finger traveling across them. I felt that at that moment I was touching Dana's soul.

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All of the good times, the fun, the hurts, and finally the loss of our friendship in his death flowed through me as I closed my eyes. Then, stepping back, I said a prayer, first thanking God that Margaret was kind enough to bring me to the monument and then thanking God that Dana was with him in heaven.

A part of me was finally healed. Focusing on the monument that holds no religious significance and yet all religious significance allowed me the opportunity to put to rest the hurts from my losses from the war and to finally say farewell to my best friend.

73 de Joe Lynch, N6CL



The Vietnam Memorial Wall is a place for healing of the wounds of the Vietnam War. It served that purpose for this author.

FCC Highlights

By: Jack Kelleher, W4ZC, FCC Editor

Spectrum Auctions—What Can We Amateurs Expect?

A commentary in the August 3rd edition of the Washington Post, entitled "When there is no such thing as a Free License" discusses the recent first-ever auction of frequencies by the FCC, which netted the Government more than half a billion dollars. Is this a threat to frequencies now allocated to the Amateur Service and the Amateur Satellite Service? Maybe yes, maybe no, but the potential impact of this event should not be viewed lightly.

One statement in the Post article is "Ever since the late 1950s, economists have been arguing that it's insane for the FCC to hand out those licenses for free." "Those licenses" do not now include amateur licenses. Let's hope that it stays that way. But there are two sides to this coin. The other side is whether those now bidding large amounts of money for preferred frequencies will eventually look covetously at our bands.

The frequency range from about 500 to 2500 MHz is the range most sought after by those vying for licenses to exploit new "wireless" services which are on the horizon. At the same time, proposed changes in the allocation status of bands such as 420-450 MHz, 902-928 MHz, and 2300-2450 MHz (where the Amateur Service has secondary status), portend an increase in commercial operations in these bands. (Note: In particular, the mandate from Congress to transfer frequencies from Government to non-Government use, the first result of which is a proposal involving parts of the 2300-2450 MHz band). A different and perhaps more difficult sharing scenario is anticipated between amateurs and non-Government occupants in the range 2300-2310 and 2390-2450 MHz. This may place an additional burden on amateur operations in terms of non-interference with the primary occupants. And if the primary occupants have to pay to use their frequencies, you can be sure that interference from secondary users will "cause a fuss."

Given this new and intense monetary competition for frequencies, how do we amateurs minimize the possibility of loss? One line of defense is to adhere strictly to our non-commercial image, and scrupulously avoid providing services which can be construed, rightly or wrongly, as competition with "communications for hire." The Amateur Service is defined, in Part 97 of the FCC Rules and Regulations, as "A Radio communication Service for the purpose of self-training, inter communication and technical investigations carried out by amateurs, that is, duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest" We should go out of our way to maintain that posture.

FCC Announces Organizational Changes.

On August 1st, FCC Chairman Reed E. Hundt announced the Commission's intention to create a Wireless Telecommunications Bureau; create an International Bureau; create an Office of Workplace Diversity; create a Competition Division in the Office of General Counsel; and move the Office of Small Business Activities out of the Office of Managing Director and have it report directly to the Commission.

In announcing the changes Chairman Hundt said; "The two biggest organizational changes we propose today are the

creation of a Wireless Telecommunications Bureau and an International Bureau. My initial sense that a Wireless Bureau was necessary was confirmed by last week's phenomenally successful spectrum auctions. A Bureau dedicated to the mission of wireless services will ensure that we remain on track with the licensing of PCS and with other emerging technologies. In addition, the issues facing the communications industry are almost never without

international implications. Our International Bureau will better meet the challenges ahead as the FCC continues its role in international telecommunications, working with the Department of State and NTIA in the promotion of the Global Information Infrastructure."

(Ed note: The Personal Radio Branch, formerly a part of the Private Radio Bureau, now comes under the Wireless Telecommunications Bureau, and Ralph Haller, formerly chief of the Private Radio Bureau, becomes a Deputy Chief of the new Wireless Telecommunications Bureau. Also, it is interesting to note that the term wireless, the original name for radio, is back in the limelight.)



Comments on Proposed 2.4 GHz Reallocations

We have addressed this topic in several previous columns. Highlights of Reply Comments appear in the July 15 issue of "W5YI Report." In general, these comments bear out the fears expressed by the American Radio Relay League during the formative stages of these proposals, that sharing these frequencies with commercial users probably will be more difficult than sharing them with Government users. The actual comments are too numerous and too lengthy to include in our limited space.

Proposed New "Family Radio Service"

According to the "W5YI Report" (August 1) the Radio Shack Division of Tandy Corporation filed a Petition for Rule Making with the FCC to use UHF spectrum for a new Family Radio Service (FRS) "...without the burdensome licensing and technical requirements of existing radio services."

"Parents will have an extra measure of security by using FRS to monitor their children at play." Tandy said. "Families and friends will be able to maintain close contact at sporting events, shopping malls, parks and between vehicles during trips. Impromptu groups will be able to communicate conveniently using FRS for activities such as fund raising and social events."

FRS would use 500 mw radios on 16 channels in the General Mobile Radio Service (GMRS), a licensed personal radio service for individual use (FCC Part 95A). GMRS has eight "primary" frequency pairs at 462 and 467 MHz for repeater and direct (simplex) Communications, seven low-power, direct-only "interstitial" frequencies at 462 MHz in between the primary

frequencies, and seven interstitial frequencies at 467 MHz in reserve for advanced systems.

GMRS was one of the earliest mobile radio services, predating CB and most of the business services by many years. The licensing rate in GMRS has increased as the cost of GMRS equipment has come down and as more GMRS repeaters go on the air across the country.

Watch Your License Expiration Date.

Amateurs receiving new or modified FCC licenses after June 8, 1994, should carefully note their expiration date. Only new, first licenses or specific renewals have a full ten-year term. Amateur license upgrades, changes of address, call sign, or name, are processed with the original expiration date intact. The FCC, using new computer software recently installed, is processing amateur licenses in this manner to conform to the way in which it processes all other Private Radio Service licenses.

The FCC currently recommends that amateurs submit license renewal applications 60 to 90 days before their expiration date. The Commission said it intends eventually to mail license

expiration notices to amateurs. In the meantime, the ARRL is sending license expiration notices to ARRL members, along with an FCC Form 610 and a return envelope to the FCC's licensing division in Gettysburg. Thanks to ARRL for information on this report.

Still More on RFI to Telephones

The "bullet proof" telephones mentioned in our coverage of the telephone RFI survey by FCC's Field Operations Bureau were identified in the FCC release as the Western Electric/AT&T Desk Model, available from Pro Distributors, 2811 74th Street, Lubbock, Texas (Tel: 1-800-658-2027), and the TPXL-D Desk Model available from TCE Laboratories, 2365 Waterfront Drive, Canyon Lake, TX 78133 (Tel: 210-899-4575). Both telephones were designed and built by companies owned by ham operators, and both firms initially got in the business to relieve amateurs from telephone RFI complaints. Much more information on the background of these two firms and their owners appears in the "W5YI Report" for June 15th; it is much too lengthy to reproduce here.

73 de Jack Kelleher, W4ZC, FCC Editor

Battle Creek, Michigan High School Amateur Radio Station Remembered

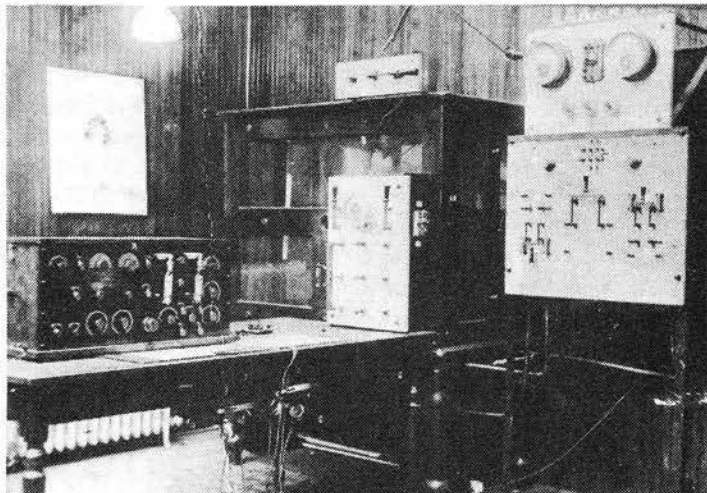
The adjacent photo of the Battle Creek, Michigan High School Amateur Radio Station was originally taken in late 1920 with a Number 2 Brownie Camera.

The station's original call was 8QU, in 1919. However that call belonged to Fred Bornman before WW.I. Subsequently the station's call was changed to 8YN.

Equipment of the station transmitter was a 1 kW transformer, rotary spark gap, both of which were in a glass cabinet. Above a large panel were eight light bulbs used to reduce power. There were also lots of switches. The antenna was a "T" with a counterpoise. The receiver consisted of two Cunninham vertical tubes, serving as a detector and an amplifier. The station had many coils for frequencies besides 200 meters.

In 1921, the high school had six licensed operators, besides the teacher, Walter Marburger.

If any 8YN operators are still around, you are urged to contact A. H. Spaulding, W4PUZ, ex 8BGI, at 1347 45th Avenue North, St. Petersburg, FL 33703.



Scholarship Contributions

The following have made contributions to the Scholarship Fund.

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Chapter 51	Martha Housenfluck
Chapter 55	W9AJH, W9WWD & W9OT
Chapter 190	
W5KL	W2GHK
Chapter 174	
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W6LF	
Call Withheld	W9LKX

DONOR	HONORING
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Chapter 149	
W5VJW	W5KJR
Chapter 39	K8NCV
East Tennessee DX Association	NY4A
W5KL and WA5WAR	WBØWWD
Chapter 63	K5CPZ's father

Are you moving? Send your change of address to: QCWA, P. O. Box 73, Oklahoma City, OK 73101-0073. Please allow one issue of the *JOURNAL* for your change to be in effect.

Silver Belles

By: Carol King, K5CPZ, YL Editor, P. O. Box 73, Oklahoma City, OK 73101

Blanche Randles, W4GXZ, is certainly no stranger to most QCWA members. Blanche is the wife of Wes Randles, W4COW, Treasurer of QCWA. Because she has the distinction of being "first" in at least two aspects of QCWA, she definitely deserves recognition and an enormous *thank you* for her dedication to this organization. With pride and admiration, we present Blanche Randles, W4GXZ.

When Blanche was seven years of age, she and her family moved from Michigan to St. Petersburg, Florida. She and Wes lived approximately a mile apart and attended the same high school, which, incidentally, was the only high school in St. Petersburg at that time. Although Blanche and Wes were good friends, they did not date each other during their high school years.

Approximately two years after they graduated from high school, they met coincidentally on the street. Wes asked Blanche to accompany him to a movie and their romance blossomed.

Blanche and Wes were married in 1940. They resided in St. Petersburg, where Wes worked as a radio station engineer for WSUN and Blanche worked in the commercial office of the telephone company.

When Wes accepted employment as a radio station engineer for WIOD, they moved to Miami, Florida. While they lived in Miami, Blanche worked for the telephone company as a switchboard operator. Blanche and Wes were in Miami for only a year when opportunity knocked again.

Wes accepted a position with Raytheon as a field engineer and they were off to Massachusetts. In order for Wes to carry out his field work assignments, he was required to travel and relocate quite frequently. They were able to remain in one place long enough, however, to bring their daughter, Diane, into the world in 1946.

In an effort to recall the many times and places they moved during the 38 years Wes worked for Raytheon, Blanche remembers a particularly noteworthy year. In that year, they moved so many times that Diane attended three different schools

during the school year.

During the early 1950's Blanche became interested in earning an Amateur Radio license. At that time, they were living in Jacksonville, Florida and the demands of Wes's job required him to travel from Pascagoula, Mississippi, to Miami, then down to Fort Lauderdale, Florida. When Blanche would turn on the rig and listen to Wes, she would become frustrated because she could not transmit. While she could talk to him at night on the telephone, she still wanted to talk with him over the radio. Additionally, she reasoned that having unused equipment was a terrible waste of money.

Blanche and Florence Bogardus, a YL friend, who has since become a Silent Key, attended evening code classes in Jacksonville, Florida. In 1954 Blanche and Florence became licensed Amateur Radio operators, Blanche received the call W4GXZ and Florence, who became known as "Little Bo" on the air, became W4HRC.

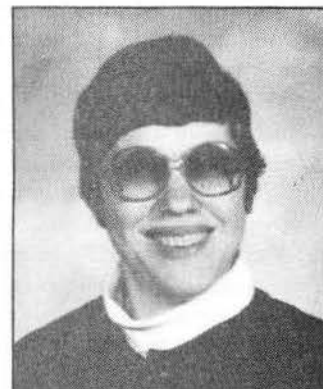
While the Randles family was still living in Jacksonville, Florida, Wes was assigned to the Arctic Region for one year. To keep occupied in his absence, Blanche became active in handling phone patches for the guys in Guantanamo Bay to their wives in Jacksonville. When the day's patches were completed, Wes would call her on the air from Alaska. Blanche remarked that propagation between Florida and Alaska was quite good that year and they missed very few QSOs.

When they moved back to Massachusetts, Blanche decided to enter the work force. She was a clerk for the J. C. Penney Company for approximately four years. Then she became a credit investigator for Sears Roebuck Company.

When Diane decided to get married, Blanche and Wes were on the road again. This time Wes was installing *en route* air traffic control systems for Raytheon, which was an FAA project. Blanche traveled with him. Because each assignment lasted for six months or so, Blanche said that they lived "sort of like gypsies."

They became quite skilled at living practically out of their car. They loaded and unloaded, packed and re-packed pots and pans and bedding and clothing at least every six months. Then they would rent an apartment in a new location. Blanche commented that this type of lifestyle was fun and they were grateful for the opportunity to have lived in so many places around these United States.

Blanche became a member of QCWA in 1979, the first year in which she was eligible to join. With her gregarious attribute and her many outstanding qualities, she has been quite an asset to the organization. Her contributions and responsibilities will be discussed below.



Blanche Randles, W4GXZ, and Tom Carten, K1PZU, the two QCWAers responsible for the JOURNAL taping program are photographed together in Wilkes Barre, Tom's QTH. Photo courtesy W4GXZ.

Because Blanche is extremely interested in Amateur Radio activities for women, she is one of the cofounders of QCWW, Quarter Century Wireless Women, Chapter 120. Creating this chapter, according to Blanche, was actually Ethel Smith, K4LMB's idea. However, with Ethel's urging, Blanche became the first president of the chapter. Blanche continues to be an active member since completion of her term as president,

Male QCWA members are invited and encouraged to become members of QCWW. Many of the male QCWW members are active participants and these men are appreciated very much. QCWW's annual meeting is held in conjunction with QCWA's national convention.

In addition to Blanche's involvement with QCWW, she has been active in the following chapters: She was the cofounder of the Yankee Chapter. She is a charter member, past president, vice president, and treasurer of the Pelican Chapter. She has served on several QCWA national convention committees and was the cochairman of the 1993 convention held in St. Petersburg, Florida.

Along with Blanche's various involvements within QCWA, she is the *first* person to serve as Tape Coordinator for QCWA. The opportunity presented itself in 1987 when Blanche became concerned about some of the members in the organization who could not see well enough to read the *JOURNAL*. Because the Young Ladies Radio League (YLRL) has a taping program, Blanche suggested that QCWA initiate a taping project for the *JOURNAL* similar to YLRL's. Since it was her idea, she was appointed as the coordinator of the project. Blanche stated that she truly loves the responsibility and she spoke proudly as she delineated her duties.

The taping program is absolutely free of charge to those of us who are visually impaired or to others who may have some type of reading difficulty. If a tape recipient wishes to retain the 90-minute cassette, which contains selected portions of the *JOURNAL*, he or she may do so. The only item that the recipient must return each time is the small carton in which the cassette was sent. Each mailer contains a label addressed to the recipient and another label addressed to Tom Carten, K1PZU, the reader of the *JOURNAL*. Returning this mailer to Tom each time is helpful, thus alleviating label and mailer duplication. QCWA assumes the full financial responsibility for the tapes and the mailing containers.

When Blanche receives the copy of the *JOURNAL* from the editor, she marks the items she feels would be most interesting to the tape recipients for Tom to read. For example, she said that she makes a very special effort to "reword" around the pictures for those who are visually impaired. Each item which she marks with a red pencil is numbered according to its priority, thus giving the President's Message the number one slot, of course.

Other items of importance are marked sequentially. In keeping with the 90-minute tape constraint, some of the articles are marked "fill." This means that Tom might read part or all of the article, depending upon the amount of tape remaining on the cassette.

Tape recipients' chapter reports are read, and Blanche alerts Tom each quarter to read the call signs of those recipients whose dues are either due or expired. This helpful reminder is a valuable service to the tape recipients who may not have received

written notification in time or their personal reader may have inadvertently forgotten to mention the dues notice.

Members who receive the *JOURNAL* tape still have a print copy sent to them. There may be items of interest to the recipient that had to be omitted because of the 90 minute time element on the tape.

Blanche and Tom are to be commended for their excellent and conscientious work in providing this *JOURNAL* tape service. Our thanks are extended on behalf of all QCWA members who are recipients of their work.

If you need the taped version of the *JOURNAL*, please contact Blanche, whose name and address appear at the bottom of the masthead on the editorial page of each *JOURNAL*.

Blanche occasionally finds time to get on the air. She especially enjoys YL nets and her favorite mode of operation is phone. At her New Hampshire QTH, she uses a Kenwood TS 830S with a modified Heathkit SB 220 amplifier. The Florida station is equipped with a Kenwood TS 830S exciter and a Kenwood TL 922 amplifier.

When she is in New Hampshire, she is active with the Women Radio Operators of New England (WRONE). She has served as its president for a two year period.

In addition to her activities in QCWA and WRONE, she is also active in the YLRL. In that organization she has served as secretary, vice president and two separate terms as president. She has also served many terms on the President's Advisory Committee.

For her work in QCWA, she has been awarded the Meritorious Award by the QCWW and Pelican Chapters.

In conjunction with Amateur Radio as a hobby, Blanche enjoys craft activities such as crocheting, knitting, needle pointing on plastic, and embroidering. Sewing is a very high priority on her hobby list, also.

She makes most of her clothes and she makes clothing for her daughter. In the past she has made tailored suits for her son-in-law, and she even made one suit for Wes. She has always enjoyed making sport shirts and dress shirts for family members.

Blanche is also an avid reader. Although she reads fiction occasionally, she particularly enjoys adventures and autobiographies.

We are indeed blessed to have Blanche as a member of QCWA. With her interest in helping others along with her compassion and her great personality, this quarter's Silver Belle is truly an inspiration!

Editor's note: After Carol submitted this column she traveled to her parent's hometown of Drumright, Oklahoma to visit her family. Her father had been ill from complications because of heart and kidney failure and her visit was welcomed by her parents.

After seeing signs of rallying in her father, Carol returned to work as a high school teacher in Oklahoma City. Within a couple of weeks, however, her father took a strong turn for the worse. It was only a matter of days before her father passed away.

We, the JOURNAL staff join with her in mourning the loss of her dad.

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Make all checks payable to: El Paso Chapter 64, QCWA. Mail this form to: Treasurer, Manuel R. Gonzalez, W2BFI, 6369 Monarch, El Paso, TX 79912. For more information: Telephone 915-584-2326.

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This form for use by all U.S. Applicants
for membership in QCWA
Effective 10/1/93

For Office Use Only

Membership No. _____

Date _____

First Licensed, Year _____

Deposit Record _____

Have you been previously enrolled in QCWA ? _____

I, _____, _____

(Print Name Clearly)

Present Call

having been licensed as an amateur 25 or more years ago and presently holding the call listed above
(it is not necessary to have been licensed the entire 25 years) hereby apply for membership in QCWA.
I understand that proof of the original date of licensing is required. My complete mailing address is :

Street Number and Name

City

State

Zip Code

I will keep QCWA Headquarters advised of changes in my address and/or call sign. My first Amateur
license was issued _____ Other calls held _____

I wish to become affiliated with QCWA Chapter _____

Date of Birth _____ Birthplace _____

Present occupation / business _____

If retired, what was major life work ? _____

Other organizations you belong to _____

Your Signature _____

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MEMBERSHIP CERTIFICATES numbered in serial order are issued to each member. Numbers are not re-issued except to the same member to whom they were first issued.

QCWA GOLD CERTIFICATES celebrate the 50th anniversary of licensing. Issued without charge to eligible members upon proof of year of first license.

GOLDEN CERTIFICATES are issued in five year increments—55, 60, 65, 70, 75 year Certificates free of charge to eligible members.

50-YEAR CONTINUOUS LICENSING Gold certificate available to eligible members. Requires submission of proof of continuous licensing. There is a \$5.00 fee. Applications available from QCWA Headquarters.

QCWA CENTURY CLUB CERTIFICATE is issued to QCWA members whose age, when added to their number of years as a QCWA member totals 100 or more. No charge for the Certificate.

MERITORIOUS AWARD is issued by Headquarters, upon request of any active QCWA Chapter. One such award is authorized for each Chapter each year. The award may be given to recognize unusual dedication to QCWA or Amateur Radio. No charge for the award.

Operating Awards

QCWA Operating Award Certificates are issued to QCWA members by the activities manager. Proof of eligibility is required.

QCWA WORKED 50 STATES awards are issued to QCWA members who have contacted members in each state of the Union.

QCWA WORKED 100 MEMBERS awards are issued to QCWA members who have contacted at least 100 QCWA members.

QCWA WORKED 60 CHAPTERS awards are issued to QCWA members who have contacted members of 60 chapters.

QCWA WORKED 500 MEMBERS awards are issued to QCWA members who have contacted 500 QCWA members.

In addition, plaques are awarded to the highest scoring members for both phone and CW QSO Parties. Runners-up receive certificates.

Ham's Health

By: Dr. Dub George, WA5BFF, 4100 Big Bend, Port Arthur, TX 77642, Phone: H: (409) 982-4442, W: (409) 983-5145, Fax: (409) 983-6519

This edition's subject could be called "An Ounce of Prevention." I want to talk about some things that the mature Ham should consider as basic preventive medicine. First we will cover important immunizations and then consider Traveler's Diarrhea.

Influenza Vaccine

If you are receiving this edition of the *JOURNAL* in late September or early October, it is about time for your annual flu shot. As you may know from personal experience, influenza is an acute illness characterized by the abrupt onset of headache, feverishness, chilliness, muscle aches, malaise, cough and sore throat. An uncomplicated case usually resolves in 2 to 5 days and most are well on the road to recovery in a week. A significant minority, particularly the elderly, continue with symptoms of weakness or the blahs that may last up to several weeks.

Older individuals and those with underlying health problems are at increased risk for developing the complication of pneumonia. It has been estimated that since 1957 there have been over 500,000 deaths due to influenza and its complications in the United States.

The incidence of influenza can be reduced by 50 to 80 percent by the administration of influenza vaccine. These vaccines are derived from viruses that were known to have circulated in the previous year. The currently available vaccines have been highly purified and are associated with few reactions. Up to 5 percent of those vaccinated will have low grade fever and mild systemic symptoms 8 to 24 hours after vaccination and up to a third will have a mild redness or tenderness at the injection site. As the vaccine is produced in eggs, those with a definite allergy to egg products should not receive the vaccine.

The vaccine is usually made available in early September each year. The optimum time for vaccination in high-risk groups is from mid-October through mid-November.

While the vaccine is recommended for anyone over 6 months of age who wishes to avoid influenza, there are several groups who are at increased risk for influenza-related complications and should strongly consider it.

- Persons 65 years of age and older.
- Residents of nursing homes and other chronic care facilities.
- Adults and children with chronic disorders of the pulmonary or cardiovascular system, including children with asthma.
- Adults and children who have required regular medical care or hospitalization for chronic metabolic diseases such as diabetes or chronic kidney disease.
- Children and teen-agers who are receiving long-term aspirin therapy.

There are also groups that can easily transmit influenza to persons at high risk. It is recommended that members of these groups receive the vaccine to avoid undue exposure of high risk individuals. These groups include:

- Physicians, nurses and other personnel in hospitals and outpatient-care facilities.
- Employees of nursing homes and chronic care facilities who have contact with patients or residents.
- Providers of home care to persons at high risk (visiting nurses and volunteer workers).
- Household members (including children) of persons in high-risk groups.

The only ones who should not be vaccinated are children under 6 months of age and anyone with a history of significant allergic reaction to egg products. Anyone with an acute illness accompanied by fever should delay vaccination until their symptoms have cleared.

For those who have missed vaccination and find themselves in the middle of flu season all is not lost. Although immunization with influenza vaccine is not effective for at least two weeks, two drugs, amantadine (Symmetrel) and rimantadine (Flumadine), offer protection for influenza type A, the most frequent cause of severe influenza disease. The drugs are given in a single daily oral dose during the duration of the outbreak.

These drugs are also beneficial in treating actual cases of influenza if started early in the illness.

Pneumonia Vaccine

Approximately 50 percent of pneumonia is caused by an organism called the pneumococcus. A vaccine is available that is effective against approximately 80 percent of these organisms. This vaccine is recommended for those over age 55, those with chronic lung disease, diabetes, chronic liver or kidney disease and a variety of malignancies. It is also recommended for those with sickle cell disease or a history of splenectomy. A single injection of the vaccine gives permanent immunity.

Tetnus Vaccine

Of the approximately 50 cases of tetnus reported in the United States each year over 70 percent occur in those over the age of 50. Most cases occur after an acute injury, such as a puncture wound or laceration. Most of these injuries occur at home, indoors or outdoors and frequently in the garden. The injury may be major, but most often is so trivial that medical attention is not sought. It may also be associated with burns, skin ulcers, frostbite, ear infection, surgery, abortion or childbirth. In some individuals no history of injury can be obtained.

The disease is preventable by vaccination. Since the mid 1940's tetnus toxoid has been available. Today 47 states and the District of Columbia have immunization requirements and greater than 95 percent of children entering school have been immunized. What about those adults who finished their public school education before the mid 1940s, who never served in the military, never worked for a company with an active immunization program or for some other reason never received the primary immunization series for tetnus? They are at risk. If fact, even individuals who received an adequate initial immunization greater than 10 years ago need a "booster" to bring their immunity up to effective levels.

It is recommended that anyone who has never received the initial immunization be given an injection of Tetnus Toxoid followed by a second dose 4 to 8 weeks later and a third dose 6 to 12 months later. A booster dose should be given every 10 years.



Anyone who receives an acute injury who has not received adequate initial tetanus immunization requires the use of Tetanus Immune Globulin. This preparation contains a high concentration of antibodies to tetanus toxin that can be given to deal with the immediate problem. However, TIG does not give long-term immunity and should be administered along with the initial dose of a tetanus toxoid series.

Traveler's Diarrhea

By definition, traveler's diarrhea occurs in a person who normally lives in an industrialized region who travels to a developing tropical or semitropical country. It may include illness developing up to 10 days after returning home.

Traveler's diarrhea is usually defined as the passage of at least three unformed stools in a 24-hour period, associated with nausea, vomiting, abdominal pain or cramps, fecal urgency, rectal spasm or the passage of bloody or mucoid stool. Diarrhea occurs in 20-40 percent of those traveling to the tropical and semitropical areas of Latin America; parts of the Caribbean, such as Haiti and the Dominican Republic; Southern Asia; and North, East and West Africa.

Approximately 80 percent of traveler's diarrhea is caused by bacteria. The most important of these is the enterotoxigenic *Escherichia coli* (this strain of the common colon bacillus produces a powerful toxin that attacks the gastrointestinal tract). Other important diarrhea producing bacteria include shigella species, *Campylobacter jejuni*, aeromonas species and salmonella species.

The most common sources of traveler's diarrhea are contaminated food and to a lesser degree, contaminated water. In many tropical countries crops are grown in soil fertilized with human feces, thus ensuring widespread contamination of the food supply with colon bacteria capable of causing diarrhea.

Probably up to 10 percent of traveler's diarrhea is viral in origin. This form is spread primarily by water, particularly during rainy seasons.

The primary prevention of traveler's diarrhea lies in exercising care in what one eats or drinks. Acceptable are freshly prepared foods that are served steaming hot, fruits that can be peeled, vegetables that have been thoroughly washed with previously boiled or bottled water, syrups, jellies and bread. Safe beverages include hot tea or coffee and bottled or recently boiled liquids. Tap water and ice cubes should be considered contaminated even when added to alcoholic drinks.

Unfortunately many travelers are unwilling to exercise the care in selecting food and beverages that is required to significantly minimize the risk. These brave but foolhardy souls may consider the use of antibacterial medications. The use of such drugs as trimethoprim-sulfamethoxazole (Bactrim) and ciprofloxacin (Cipro) have proven effective. If the strains of bacteria in an area are susceptible to a particular antibiotic, its daily use will reduce the development of traveler's diarrhea by 80 to 90 percent. Unfortunately, Bactrim resistance has developed in many areas and today Cipro represents the most dependable antibiotic prophylaxis.

Another approach to the prevention of traveler's diarrhea is the use of bismuth subsalicylate (Pepto-Bismol). This popular over-the-counter pink liquid has a short-term antibacterial activity in the gut and must be given 4 times a day with meals and at bedtime. It will reduce the incidence of traveler's diarrhea by approximately 65 percent. Reducing the dosing to twice a day with meals produces only a 40 percent reduction. Its use coupled with prudent choice of foods and beverages results in a reasonable degree of safety.

There are some negatives to be considered before using prophylactic medications. The only recognized side effects of Pepto-Bismol are a transient ringing of the ears and a harmless blackening of

the tongue and stool that goes away after the drug is stopped. The recognized side effects of the antibiotics include skin rashes and vaginal yeast infections in approximately 3 percent of those who use them. Bone marrow suppression, antibiotic-associated diarrhea and other severe reactions may occur in as many as 1 in 10,000 exposed persons. Travelers choosing antibiotic prophylaxis run the risk of a severe reaction to prevent an illness that is self-limited. In light of this, many prudent physicians recommend the use of antibiotics only after the development of the diarrhea to shorten the length and lessen the severity of the illness.

There are several factors to be considered in deciding whether prophylaxis is advisable.

- Does the traveler have an important underlying health problem?
- Will the trip be ruined if the traveler has a brief illness that might force a change in itinerary?
- Is the traveler unwilling to follow careful dietary restrictions?

Traveler's diarrhea may lead to the loss of fluids and electrolytes. Most persons do not become rapidly dehydrated, so flavored mineral water taken with saltine crackers is usually adequate to meet salt and fluid losses. Many patients require no other treatment or can be treated symptomatically to reduce the number of unformed stools and shorten the duration of the diarrhea. Pepto-Bismol reduces the number of unformed stools by 50 percent. Loperamide (Imodium) reduces both the frequency and duration of diarrhea by up to 80 percent. If the diarrhea is accompanied by fever or there is blood in the stools Imodium should not be used.

Antibiotics are more effective in curing the intestinal infection. However, their onset of action is slower than that of the Pepto-Bismol or Imodium. Antibiotic therapy is indicated after the passage of the third unformed stool in 24 hours. Cipro is advisable for most adults traveling in high risk parts of the world. Nevertheless, for travelers to the non coastal areas of Mexico in the summer, Bactrim is the drug of choice.

If moderate to severe diarrhea develops, especially if fever persists or there are bloody stools or dehydration, travelers should seek medical attention, whether or not they have been taking prophylaxis or self therapy.

To sum this whole thing up:

- Get your flu shot.
- If you haven't had a Pneumonia shot, strongly consider getting one.
- If you haven't had a Tetanus booster in the past 10 years, get one.
- If you aren't sure you had a primary series of Tetanus toxoid, start the series of three.
- If you are traveling to a developing tropical or semitropical country remember what your mother always said, "Don't drink the water or eat the salad."

Now you know why the vegetables look so pretty and green.

73 de Dr. Dub George, WA5BFF.

Dr. Dub looks forward to hearing from you concerning your general medical questions. To see a topic discussed in this column or to ask Dr. Dub a question, write him, call him, or fax him at the address or telephone numbers that appear at the beginning of this column.

Oscilloscopes—Selecting and Restoring a Classic

By: Stan Griffiths, W7NI. ISBN 0-9633071-5-0; 372 pp.

Reviewed by Doug Hensley, WJ5J.

Tektronix oscilloscopes and accessory plug-ins have been available for many years on the different markets at usually bargain prices. We've all seen them at flea markets, hamfests, military surplus auctions, surplus mail order houses, etc. Yet, despite low cost and full features, if you're like many hams, you probably don't own one because you lacked enough information or guidance on selecting one for yourself, or had some second thoughts about maintaining one.

There is now a new book which you can take with you to the hamfest, or use as a station reference, that has been written to provide you with just that kind of information and guidance. If I'm right, it's also destined to raise the ante on select models!

Penned and published by a seasoned Tektronix service engineer, Stan Griffiths' *Oscilloscopes* is a practical field guide which walks the reader model by model through well over 250 production Tektronix scopes and plug-ins. His main review section is also prefaced by several carefully written chapters designed to educate and then guide a new owner through a recommended restoration process. His agenda is:

- Chapter 1—How an Oscilloscope works
- Chapter 2—Determining Instrument Condition
- Chapter 3—Cleaning Your Oscilloscope
- Chapter 4—Electrically Restoring Your Oscilloscope
- Chapter 5—(Identification Nomenclature)
- Chapter 6—Instrument Descriptions
- Chapter 7—Glossary of Terms (Basic Concepts)
- Appendices: Parts—Sources & Substitutions

In brief, Stan's book has good balance to it. By covering basic operation and maintenance, he not only encourages the procrastinator to get involved but provides enough fundamental information for him to estimate his own reasonable chance at success. And by passing on to all of us many of the observations, technical highlights, and special precautions learned during his service at Tektronix, Stan has very thoughtfully passed on to us information that usually disappears with the retiring staff. Good job Stan.

I do have two observations to pass on about this book and what it is trying to accomplish. First, this information is condensed from many years of professional service. Listen to the precautions and study his method of bringing an instrument back to life before you dive in. *Think* about what you would be doing or might do before you do it. If you have any doubts about a procedure, especially during power applied diagnosis, consult with a more experienced amateur before you begin. And that leads me to my second observation. Stan is an experienced High Voltage circuit analyst. If you are new to HV testing and repair, do some homework first. Read your Handbook sections on HV safety and practice, acquaint yourself with HV measuring tools, give yourself ample room to work, follow the right hand use rule, and never—ever—assume.

Early next year Stan is considering the release of a second volume containing new material complimentary to this first volume. This may well produce a two volume classic that will be around for a long time. *Oscilloscopes* is available for \$19.95 (which includes surface shipping) from the author, by writing Stan at: 18955 SW Blanton; Aloha, Oregon 97007. Contact Stan for airmail shipping and dealer inquiries.

73 de Doug Hensley, WJ5J.



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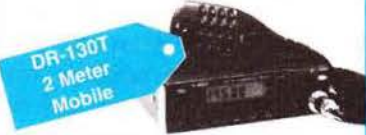
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Amateur Satellite News

By: Keith Pugh, W5IU, Vice President of Operations, AMSAT-NA, Satellite Editor,

At this years ARRL National Convention, I was privileged to be invited to speak at the ARRL Amateur Radio in Education Workshop. This experience re-kindled an old interest in Amateur Radio Satellites in Education. Another recent experience, Re-identification of KO-25, highlighted one of the educational aspects of Amateur Radio Satellites. These two experiences will be used to illustrate how Amateur Radio Satellites can be utilized in a teaching environment to further your space education and how this experience can be shared with others.

EDUCATIONAL "BIRDS"

All Amateur Radio Satellites transmit telemetry data in one form or another to describe their "health and welfare". The study of this telemetry to gain an understanding of space craft design and the space environment is the principal source of the scientific education value of satellites. Satellite orbital determination and prediction can be studied with simple experiments and the results utilized to enhance understanding of mathematics and the scientific reasoning processes. An excellent example of this process titled "A Simple Satellite Monitoring Project" has been published by Geoff Perry, MBE, of The Kettering Group in *The 1993 Proceedings of the AMSAT-UK COLLOQUIUM*. This may sound boring, but these studies can be made exciting through the "hands-on" involvement that is possible with Amateur Radio Satellite studies.

With a radio, a TNC, a computer, and appropriate software, experiments can be devised to demonstrate, with visual aids and sounds, the day to day operation of Amateur Radio Satellites in orbit. Elaborate antenna installations are not necessary if the "Educational Birds" are used. Two categories of software, (1) orbital prediction programs and (2) telemetry processing programs, can be obtained from AMSAT. A very good book on the subject *Decoding Telemetry from the Amateur Satellites* by G. Gould Smith, WA4SXM, is also available from AMSAT.

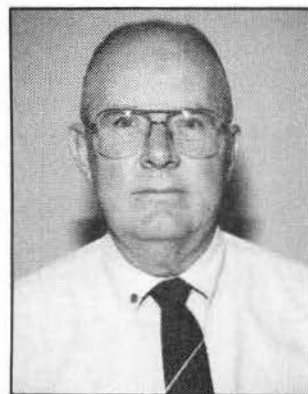
Satellites can also be integrated into non-scientific studies such as geography and social studies. These opportunities are limited only by your imagination. The Soviet-Canadian Ski Trek operation conducted in 1988 with the help of UoSAT OSCAR 11 is an excellent example of a project that was utilized throughout the world to teach all of these subjects.

Since 1990, several new satellites have been launched bringing the total "covey" of Amateur Radio Satellites up to nineteen. All nineteen satellites can be considered educational; however, only four are really dedicated to education. These four - SAREX, UoSAT OSCAR 11, DOVE, and WEBERSAT - will be discussed individually.

SAREX

The Shuttle Amateur Radio Experiment (SAREX) is a joint NASA, ARRL, and AMSAT project in which amateur radio equipment is carried on board the US Space Shuttle by Astronauts who are also licensed amateur radio operators. The main justification for SAREX, in the eyes of NASA, is education. SAREX has been widely acclaimed by the Astronauts and the public in general. Currently, SAREX flies on three to five shuttle missions a year. SAREX

activities are very popular and receive much attention since it is possible to talk to an Astronaut directly and learn about the mission at hand and the benefits of space to an individual. SAREX is good, but the unmanned Low Earth Orbit (LEO) "birds" are available for study a much larger percentage of the time and can be more fully integrated into an "on-going" satellite study program.



UoSAT OSCAR 11

UoSAT OSCAR 11 (UO-11) is the oldest satellite currently used for education. It was launched on 1 March 1984 and is still very active today. It has been used throughout its long career for many experiments and continues today to produce valuable data and training in space and communications disciplines. It was very successfully integrated into the classroom, world wide, during the Soviet-Canadian Ski Trek in Winter/Spring 1988. It also serves as a bulletin board for AMSAT-UK and the rest of the AMSAT World. Although not as powerful as DOVE, it is still easy to copy with a minimum of equipment.

DOVE

The Digital Orbiting Voice Encoder (DOVE) satellite was conceived by Dr. Junior DeCastro, PY2BJO. It was inspired by the UO-11 involvement in the Soviet-Canadian Ski Trek. Junior wanted a "bird" dedicated to education and international "good will" that was very simple to use and took a very minimal amount of equipment. DOVE was built and launched along with three other MicroSats in January 1990. DOVE has not reached its full potential yet. It was plagued with a couple of hardware problems from the first which initially made it difficult to manage and utilize. Currently, it has started talking with digitized speech in simple phrases and continues to provide very complete telemetry for studies along with simple bulletin information. The command team is very dedicated and great things are starting to happen. A complete status report titled "DOVE PROGRESS REPORT AND FUTURE OPERATION" by Jim White, WD0E, was included in *Proceedings of the AMSAT-NA Eleventh Space Symposium and AMSAT 1993 Annual Meeting*.

DOVE can be copied with nothing more than a "Hand Held" and a "Rubber Duck" on 145.825 MHz or it can be tape recorded with a standard audio cassette recorder and played back through the TNC and Computer to illustrate operation. It is also very simple to devise full size models of this 9 x 9 x 9 inch "Bird" to illustrate spacecraft orientation relative to the Sun in accordance with the captured telemetry. Utilizing TLMDCII decoding software, the telemetry can be displayed in real time, captured for future processing, printed out, or processed into a spread sheet format for further studies. Table 1 is an example of DOVE telemetry illustrating the variety of parameters available for study. Of

Table 1 DOVE TELEMETRY

uptime is 071/02:48:18. Time is Sat Aug 20 16:48:56 1994

Rx E/F AudioW	2.263 V	Rx E/F AudioN	2.140 V	Mixer Bias V	1.408 V
Osc. Bisd V	0.530 V	Rx A Audio (W)	2.165 V	Rx A Audio (N)	2.165 V
Rx A DISC	0.040 k	Rx A S meter	82.000 C	Rx E/F DISC	-1.477 k
Rx E/F S meter	107.000 C	+5 Volt Bus	4.941 V	+5V Rx Current	0.025 A
+2.5V VREF	2.506 V	8.5V BUS	8.602 V	IR Detector	65.000 C
LO Monitor I	0.001 A	+10V Bus	11.368 V	GASFET Bias I	0.004 A
Ground REF	0.010 V	+Z Array V	22.506 V	Rx Temp	1.209 D
+X (RX) temp	-9.683 D	Bat 1 V	1.408 V	Bat 2 V	1.434 V
Bat 3 V	1.419 V	Bat 4 V	1.401 V	Bat 5 V	1.411 V
Bat 6 V	1.838 V	Bat 7 V	1.426 V	Bat 8 V	1.415 V
Array V	22.253 V	+5V Bus	5.083 V	+8.5V Bus	8.950 V
+10V Bus	11.996 V	BCR Set Point	136.113 C	BCR Load Cur	0.101 A
+8.5V Bus Cur	0.033 A	+5V Bus Cur	0.212 A	-X Array Cur	-0.011 A
+X Array Cur	0.122 A	-Y Array Cur	-0.007 A	+Y Array Cur	-0.009 A
-Z Array Cur	-0.009 A	+Z Array Cur	0.239 A	Ext Power Cur	-0.018 A
BCR Input Cur	0.442 A	BCR Output Cur	0.311 A	Bat 1 Temp	-0.607 D
Bat 2 Temp	-28.441 D	Basepl Temp	-0.607 D	FM TX#1 RF OUT	0.026 W
FM TX#2 RF OUT	-0.003 W	PSK TX HPA Tmp	-0.607 D	+Y Array Temp	0.603 D
RC PSK HPA Tmp	-1.817 D	RC PSK BP Temp	-3.027 D	+Z Array Temp	12.100 D

Total Array I= 0.361 Bat Ch I= 0.209 Feedback I= 0.081 +10V Bus I= 0.021

DOVE TXA:0 TXB:1 TX Pwr:D SbT:0 BCR:8A

easy to confuse the objects, particularly soon after launch. Even a year later, problems sometimes persist. This was the case of KO-25. Using the published Keplerian Data for KO-25, many stations started noticing small irregularities in the Acquisition of Signal (AOS) and Loss of Signal (LOS) times when comparing the predicted data to actual observations. The irregularities were small but significant when coupled with an automated satellite ground station.

The solution was simple. Obtain the Keplerian Data for all of the objects from the same launch and through comparison of predictions and actual observations of the signals, determine which one was the real KO-25. In this case, observations of AOS/LOS times, Doppler curve fit (frequency vs. time plots), and presence or absence of signals when KO-25 was near the horizon, taken together, were adequate to access which object was the real KO-25. In a short time, it was obvious that Object # 22828, listed as Healthsat, was really KO-

particular interest are the array currents. Observing these currents over a period of time, you can determine the attitude and spin rate of the satellite.

WEBERSAT

WEBERSAT was sponsored by Weber State University in Ogden, Utah. It is another of the original four MicroSats launched in January of 1990. From the very beginning, it was used as an educational tool. Much of the space frame and electronics were built at Weber State by students. To this day, it is controlled and managed by students. Its experiments are carried out by students and software has been developed by students to enhance the experiments.

Weber State University continues to be deeply involved in Amateur Radio Satellites as an integral part of their curriculum. They are currently building major parts of the Phase 3D project for AMSAT as part of their on-going involvement in Aerospace Education.

RE-IDENTIFICATION OF KO-25

Kitsat OSCAR 25 (KO-25) is one of the high speed digital (9600 bps) packet relay satellites currently in orbit. It was launched in September, 1993, along with six other objects. Herein lies the problem! With so many objects on the same launch, it is sometimes

25. Object # 22830 had been listed as KO-25. Subsequent KO-25 user observations confirmed the analysis "beyond a shadow of doubt."

All that was required to perform this identification was a receiver that would receive the satellite downlink frequency, a clock calibrated to WWV, and a computer with satellite orbital prediction software. Anyone could perform the simple observations required and learn about orbital mechanics in the process. In the case of the Doppler observations, it is very helpful for the receiver to have accurate frequency calibration and an FM discriminator for this satellite.

SUMMARY

I hope this brief introduction has shed some light onto the role Amateur Radio Satellites can play in the Classroom and your shack. Simple demonstrations can be devised for use in the classroom, before a Boy Scout Troop, or for your local radio club meeting. I believe that the educational value of Amateur Radio Satellites is one of the most valuable and least explored facets of the Amateur Radio Satellite Program. Feel free to contact the author for further guidance in this subject.

73 de Keith Pugh, W5IU.

CQ Announces Plans for 50th Anniversary Celebration

(Hicksville, NY) *CQ: The Radio Amateur's Journal* will celebrate a half-century of service to Amateur Radio in 1995 with a special anniversary issue, a new group of operating awards and a variety of off-air events and special opportunities, it was announced by Publisher (and QCWAer) Richard A Ross, K2MGA.

"This is a very special time for us," Ross said, "and we want to do our best to share our celebration with our readers and advertisers." He outlined the following highlights of *CQ's* anniversary plans:

The January, 1995, issue of *CQ* will be a collector's item, including a special section devoted to the magazine's 50th anniversary.

Articles will trace the past half-century in ham radio as well as the "real world" and will offer highlights of *CQ's* own history. And many *CQ* columnists will look back at how their specialty areas have changed and developed over the past 50 years.

A new series of operating awards will let readers "join the party" on the air. These limited-time awards will be offered for contacts made during *CQ's* 50th anniversary year, and will provide a range of challenges that should appeal to new and experienced operators alike. Plans are also being made for a variety of off-air events, commemorative products and promotions. Details will soon be published in *CQ*.

CQ DX

By: Chip Margelli, K7JA, DX Editor, 6652 Cerulean Avenue, Garden Grove, CA 92645

DSP Filters: Are They for You?

A recent addition to the arsenal of weapons available for use by the DX operator is the so-called "DSP Audio Filter." Utilizing extremely new design techniques, these filters can provide a wide array of filtering options so as to enhance selectivity in the receive line. But what are all these funny "buzz words" in the ads, and do these outboard filters really work? Let's see.

The Basics

These filters are, first and foremost, *audio filters*. They are (almost always) installed in the audio output line via the speaker or headphone jack of your transceiver or receiver. This is done to ease the interfacing job on the part of the owner. The fact that these are *audio filters*, though, means that they are *not* working in the RF or IF stages, the latter are where your AGC circuit is at work the gadget that limits the signal level so as to save your ears from damage—and which drives your S-meter—and this means that there will be a limit as to what the DSP filters can do. But even within these limits, they have some fascinating possibilities.

DSP filters may have a number of different operating modes. For CW, SSB, and data (packet, RTTY, etc.) modes, they usually have a "bandpass filter" mode, similar to traditional audio filters. You set a bandwidth (say, 300 Hz for CW), set a center frequency, and then your passband is nice and narrow, allowing better QRM rejection than if the filter were not there. Some filters use "high cut" and "low cut" techniques for doing this job. DSP filters tend to have very steep skirts and very clean peak responses compared to the older RC active filters we've used for years.

Another feature of many of these filters is a "notch" mode, which will eliminate one or more "birdies," steady carriers, or even CW signals from the incoming passband. These can be especially useful for getting rid of weak, but annoying, intermod signals on weak-signal VHF work.

Yet another feature often found is a "Noise Reduction" (NR) mode, in which a sophisticated microprocessor-based system analyzes the noise present in the receiver passband, reduces it by several tens of dB, yet allows voice or CW signals to pass based on the fact that the "desired" type of signal "looks" different from noise. The microprocessor sorts all this out, leaving a voice signal at the output that may be 20 dB more out of the noise than before it was attacked by the DSP system!

The Good News

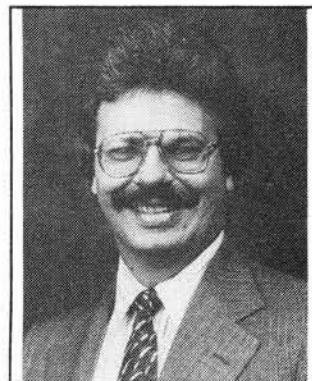
The *good news* is that these filters can (and almost always do) work as advertised. I especially am impressed by the bandpass mode, which I set to match the bandwidth of the IF filter I'm using. When you have a DSP bandpass filter set up properly, in conjunction with a good IF filter, there just won't be any "blow-by" or "buckshot" giving you headaches. The filter has digitized the audio, then chewed up and spit out the frequencies you have deemed to be "QRM," leaving only the bandwidth supposedly occupied by "The Good Guys." The effect is quite dramatic!

In the June VHF QSO Party, operating at COØFRC (see separate article in this issue) on 2 meters using a Yaesu FT-290RII with only a 2.4 kHz IF bandwidth, I was able to copy and work Dave Blaschke, W5UN, on EME, thanks to a Timewave DSP-59 filter. Narrowing down to about 100 Hz bandwidth at audio, I was able to

pick out the weak signal off the moon, despite the fact that we were using only two 14-element Yagis. Without the Timewave filter, W5UN would not be in the log.

The "Noise Reduction" mode takes a little getting used to, as the signals take on a slightly "space-age" sound to them. But over a long operating period, the reduction in background noise can really reduce operator fatigue. And you

may actually find, under some circumstances, that you can actually copy signals in the "NR" mode that you can't copy without the filter.



The Bad News

These audio filters are at the end of the receiver section, after the end of the "AGC loop." This means that, for example, strong CW signals within the IF passband (but out of the DSP filter's passband) can "pump" the audio, causing weak signals to disappear and reappear. Of course, if you have a great IF filter System, the DSP filter will work hand in hand with the IF to make a really outstanding total filter array.

These filters will *not* solve power line noise and other problems *per se*. If you have noise or QRM that is getting past your IF filters and/or noise blanker, and causing the S-meter to move, you can use your front end "Pre amp Off" switch, attenuator, or RF Gain control to back off on the receiver front end gain, so as to get the AGC out of the picture. If you can find a way to do this, the DSP filter might have a fighting chance.

In Summary

The real promise of DSP technology will come when manufacturers can apply these techniques right at the beginning of the receiver. These noise reduction techniques, if they could be applied early in the IF section, would instantly obsolete all our current IF crystal filters and noise blankers. However, affordable DSP technology for this task is several years off. The processing speed and memory space required to make all this happen in an IF environment are not cheap, if you're going to do it right.

In the meantime, the filters currently on the market may prove useful to you in your QRM fighting task. As with any element of your station, there will be times when the filter won't seem to make a lot of difference. At other times, you'll wonder how you lived without it.

The DSP class of audio filters are definitely a major improvement over earlier audio filters, in terms of the selectivity they provide and the fact that they tend to "ring" much, much less in very narrow bandwidths. Add to these aspects the new "Noise Reduction" mode available on many units and you'll probably want to take some time at your local dealer's showroom to listen to one or more of them. Each filter has its own set of features, so exercise them a bit before you make your choice.

Good DX and happy listening for now.

73 de Chip Margelli, K7JA.

Chapter Reports

Note: Chapter Reports are in Chapter numerical order.

CHAPTER 1, CLEVELAND: Our summer luncheon meeting drew a record crowd of 90 QCWA members, wives, and friends on Saturday, July 23. Once again our vice-chairman, Andy Doles, W8UDG, provided a very exciting afternoon for us. In particular, he introduced the guest speaker, Dr. Michael Koch, an alumnus of St. Ignatius High School, and more recently of St. Vincent Charity Hospital and St. John Hospital of Cleveland, Ohio. In the very first moments, Dr. Koch had his audience in stitches. However, it turned out that he was not a surgeon but a cardiologist. In plain, easy-going patter he explained all about heart conditions and heart diseases. The entire room sat in spell-bound silence to his fascinating subject. There was no doubt that Dr. Koch fully enjoys his avocation. This was testified by the numerous questions following his talk and especially after the meeting. This session was one of the best in recent times.

We were especially honored by the presence of our QCWA director, John Edel, K8LBZ. John also brought along his long-time friend, Myron R. Koyle, N8DHT.

Bernie Hinrichsen, W2NTB, Chapter 1 prexy, held a very brief meeting. It was followed by distribution of prizes with Paul Cornell, W8EFW, acting as gofer.

This was another opportunity for all members to wear their QCWA Chapter No. 1 badges! The badge is the project of our treasurer, John Brant, W8WAB.

We regretfully were informed of the passing of Steve Kocik, W8OPC, of Parma, Ohio. Rest in peace, OM!

Add Dr. Sanford Smith, WA8COK; Raymond Feruski, KB8NKK; Thomas A. Johnson, KE8VK; Julius Kulcsar, K8JK; and Robert S. Sull, WA8IMO to the QCWA and Chapter 1 rosters. Even Myron R. Koyle, N8DHT, decided to come over to the number one most active and prestigious chapter of QCWA! Welcome to the club, OMs!

The fall meeting is scheduled for Saturday, October 15, at noon at Dimitri's Restaurant. This will be a special meeting for the annual awards presentations. All of our QCWA members and their friends are cordially invited to join this Chapter 1 eyeball QSO and luncheon.

Respectfully submitted, Joseph Zelle, W8FAZ.



Left to right, Chapter 2 Secretary Betty Sandberg, W9STR; Treasurer Dick Sandberg, W9STQ; and President Jim Quinn, W9MFY, listen intently to Leo Meyerson, W0GFQ, (not shown) talk about music and Amateur Radio at the Chapter's premier meeting. Photo courtesy WA9ENA.

CHAPTER 2, CHICAGO AREA: The Chicago Area Chapter 2 premier meeting at the beautiful Itasca Country Club had what turned out to be the most outstanding program in our history!

We were so fortunate to obtain the entertainment services of Leo Meyerson, W0GFQ, who together with his wife Helen attended. Paul Crum, KF9BH, through the good offices of Chapter member Ron Steinberg, K9IKZ, rented an organ and brought a raft of electronic gear to the location.

Leo demonstrated his old time talent of organ music accompanist to silent films, showing a silent Laurel & Hardy movie to which he presented music. Following was a "Sing-A-Long with Leo" session lead by Ed Webb, W9IPO.

Another really outstanding event, to our knowledge the first time ever by a Chapter, was a telephone call-in by a group of outstanding QCWA officials and friends. Crum and Steinberg arranged to have an 800 number conference call come into a special phone hookup at Itasca. The phone circuit was wired into the room public address system. By pre arrangement, the callers were assembled, and each had the opportunity to talk to Leo.

On the conference call were: Ethel Smith, K4LMB, introduced as the "Queen of QCWA;" Wes Randles, W4COW, National QCWA Treasurer and his wife, Blanche; John Swafford, W4HU, National QCWA Secretary; Lew McCoy, W1ICP, National President; Don Doughty, W6EEN, President of the Leo Meyerson Chapter; Leland Smith, W5KL, QCWA President Emeritus; and Helen Schmock, W8GJX, first QCWA YL member.

The procedure was enjoyed by all, being a duplex round table discussion participated and heard by all in the room. It was a fitting honor to Leo for his many years of service to QCWA and Ham Radio, and a tribute to Paul Crum for his organizational ability to "pull it off!"

Respectfully submitted, Lee Knirko, W9MOL.



At the June 4th Chapter 5 meeting "BB" Wentzel, W2HX, displays his 75-year plaque while W3IIX looks on. Photo courtesy W2UAE.

CHAPTER 5, DELAWARE VALLEY: The June 4th luncheon of the Delaware Valley Chapter 5 was held at the Washington Crossing Inn at Washington Crossing, PA. There were a total of thirty present and all enjoyed a very nice luncheon meal.

The speaker was Harry Kels Swan, President of Swan Foundation and curator of the museum at the Visitors Center in the Washington Crossing Park on the New Jersey side of the Delaware River. Mr. Swan gave a very interesting talk on the Revolutionary War era in the local area of New Jersey. His knowledge of the Revolutionary War is extensive and his talk impressed all those present. Many of those attending the luncheon went on to visit the Visitors Center on the New

Jersey side and saw an interesting video on the history of the crossing of the Delaware by Washington and his troops and the Battle of Trenton, which was the turning point of the Revolution. Then they enjoyed the excellent display in the museum.

Following the speaker, Chairman George VanDyke, W3HK, conducted a short business meeting, and had the pleasure of awarding a plaque from National Headquarters for 75 years as a licensed ham to "BB" Wentzel, W2HX. His original call was 3HW. "BB" has been active since he was first licensed and still has his original license on display in his ham shack.

A new member to the Chapter, Charles Alsdorf, W2FBE, was also presented with his membership certificate and officially welcomed into the Chapter.

It is with much regret that we have to report that an old member of our Chapter and of National, has become a Silent Key. Ed Kerr, W2QUH, passed away last month. Ed's early membership in National is indicated by his membership number—NR 309.

The Chapter net meets each Sunday morning at 10:00 AM on 3917 kHz. All members and friends are encouraged to check in and join the group. W2EEQ is net control.

Respectfully submitted, Don Field, W2UAE, Secretary.



Left to right, John Hoffer, W8CWY, George Montgomery, W3KVS, George Kitazawa, N3SO, Ed Gammeter, W8CSU, Bill Lawrence, W3NHQ, and Howard Hunter, W3JAV. John received Chapter 6 Meritorious Award; Ed received a Certificate of Appreciation; and all others received 60 year Anniversary Awards. Photo courtesy W3SVJ.

CHAPTER 6, PITTSBURGH: At a recent luncheon meeting of Chapter 6 held at Tonidale Restaurant, 22 members were honored for their collective 1295 years of Amateur Radio service. In addition, John Hoffer, W8CWY, was presented a Meritorious Award for his service as "Historian-Awards Chairman." Also, Ed Gammeter, W8CSU, was honored with a Certificate of Appreciation of Outstanding Service for his effort as the President and the Net Control Station of the club.

It was suggested that at future luncheon meetings, the members would bring examples of very old radio/wireless apparatus for display and discussion.

Respectfully submitted, Nathan Firestone, W3SVJ, Secretary.



Archie Willis, W6LPJ, is presented his 50-year Award on May 21, 1994, by Vi Barrett, W6CBA, president of Southern California Chapter 7. Photo courtesy W6CBA.



Members of Chapter 8 outside the Monticello, Minnesota Nuclear Generating plant on the occasion of our recent tour. Photo courtesy WOUGY.

CHAPTER 8, UPPER MIDWEST: At our recent group meeting we toured the 569 Megawatt Monticello, Minnesota Nuclear Generating plant. We were taken through the entire highly secured reactor area in what was one of our most educational meetings. The program was arranged by Program Chairman and Vice-President Bob Paul, K0FQY.

We learned the operation began in June 1971 at a cost of \$119 million. We also learned that it uses pellets of uranium dioxide in 484 fuel assemblies with a total uranium weight of 190,000 pounds which is equivalent to 7 million tons of coal. One fourth of these pellet assemblies are replaced every 18 months. To protect employees and environment, radiation barriers include zircaloy metal tubing, steel reactor vessel, huge concrete and steel primary containment structure and the reactor building itself.

The Monticello plant has a single boiling water reactor. The nuclear chain reaction boils water inside the reactor vessel. Steam flows from the reactor through pipes directly to the turbine which drives the block-long electric generator.

We all had to wear dosimeters to measure the radiation we incurred during the four-hour tour and lecture and be "processed" through a vacuum cleaning system to assure we carried no excessive radioactive contamination with us when we left.

The members of Chapter 8 will never forget this experience.

Respectfully submitted, Ken Benner, W0LHV.



On February 8, 1994, Ralph Jackson, W8LA, became a Silent Key. Ralph had been a ham for 67 years and for seven years, before health problems reduced his operating activity, he was the net control on the Michigan Chapter 10 seventy-five-meter net. On May 8, 1994, Chapter President Beverly Stoner, K8ZJU, ran the net from Ralph's station for one last time before it was dismantled. Thirty of Ralph's old friends check in to pay their respects and to extend best wishes to his wife, Ena Jackson. Photo Courtesy Chapter 10.

CHAPTER 10, MICHIGAN: On May 14, sixty-two members and guests of Michigan Chapter 10 met at the Waterfront Restaurant in Cadillac, Michigan, for a delicious lunch and our annual meeting. The

sign-in sheet showed that there were 1,360 years of Amateur Radio represented. The oldest in years of license was "Ducky," W8CJT, with 69 years.

Last year we lost four of our long-time members: W8PVI, W8LA, W8IAR, and W8ESA. A moment of silence was observed for our departed members.

Our business meeting was called to order by President Beverley Stoner, K8ZJU. It was decided to have our meeting and dinner at the same place next year. Thanks and a round of applause to Pat, K8TSO, for making arrangements. Currin Skutt, W8FSZ, was given a QCWA Meritorious Award for years as Secretary-Treasurer. His wife was given a corsage for her help. It was decided to have our picnic at Kenwood Park in Cadillac on August 17. Our new President, R. J. Beach, W8NBJ, then took over the meeting. All business was accomplished and the meeting was adjourned.

Respectfully submitted, Chapter 10.

CHAPTER 11, NORTHERN CALIFORNIA: The Chapter 11 annual picnic was held on June 4, 1994, at the home of Irv Wolfe, W6HHN, in Palo Alto. Thirty-seven members, many with their wives, were present. We began our festivities at 11:00 AM with socializing and snacks, and, of course, cold beer and soft drinks. It was a warm, sunny day and, fortunately, Lee Savage, KF6FB, brought along a huge plastic tarp which was strung up to provide a delightful shade. At noon, a buffet lunch was set up with fresh barbecued turkey, roast beef, potato salad, and cole slaw. Beer, soft drinks, and hot coffee were available. Then came desserts: German chocolate cake, chocolate fudge cake, pound cake, and, of course, ice cream.

After lunch, Jack Troster, W6ISQ, QCWA National Director, made a presentation of a plaque to Irv Wolfe for being a licensed ham radio operator for 75 years. He also gave a plaque to Walter Reed, W6ASH, as the winner of the recent QCWA CW QSO Party.

Two new members of Chapter 11 attended. Jim Lomasney, W6NIL, a very active member of South Peninsula Emergency Association (SPECS) and Bob Frierbersthauser, W6YMR, and his lovely wife, Virginia, KD4NBW. Bob is a member of Foundation for Amateur International Radio Service (FAIRS). He has traveled extensively through Europe, Russia, and Siberia. He has promised to give a program for our chapter which should be very interesting.

We all then congregated into our family room to view a video on Amateur Radio produced by Leanna Wolfe, daughter of Irv. It was made a few years ago when she headed the video production department at Laney College in Oakland. It was well received by the group.

It was a very successful get together and we all enjoyed it immensely.

Respectfully submitted, Irv Wolfe, W6HHN.

CHAPTER 16, BARRY M. GOLDWATER ARIZONA: The Spring lunch-meeting was held April 9th at the Pine Cone Inn in the cool pine atmosphere of Prescott, AZ. Forty three members and guests attended. After lunch a short business meeting was held. A nominating committee was appointed to provide a slate of officer candidates for the election in June/July. Harry Snyder, WØRN then presented a slide show with narration of his 1963 Naval Reserve tour of the Mediterranean area.

Our Summer picnic lunch-meeting was held on June 25th at the 8000 foot level on Mt. Lemmon, 30 miles N. E. of Tucson, AZ. After the picnic under the pines at La Loma picnic site a short business meeting was held. A motion was presented and passed for the secretary to cast a unanimous vote for the one candidate for each office on the slate presented. The following officers elect will be installed at our annual meeting in October to serve their two year term: President John Gray, K7GFZ, Vice President Ralph Barr, WØDNO, and Cliff Bruce, W7ER, will continue as Secretary-Treasurer. Thanks to Clem Chase, W7JGU, for arranging this trip.

It was announced that the combined QCWA Chapter 16 and the SOWP Pacific Southwest Chapter IX Seventh Annual Joint Luncheon meeting will be held on December 10, 1994 at the Safari Resort, Scottsdale, AZ. Dave Bell, W6AQ, will be the featured speaker. Dave is from Hollywood, CA and has produced several films and video tapes for the ARRL, most well known being the "World of Amateur Radio" For information and registration forms contact Bill Jackson, W6HDP, at 602-772-9641 or Cliff Bruce, W7ER at 602-947-6414. We especially want to welcome all the winter visitors in the Phoenix area. However, all amateurs are invited whether you are members or not. *Come one, come all.*

Respectfully submitted, Cliff Bruce, W7ER, Secretary, and Gerry Higgins, W9INP, President.



From left to right, Bill "Van" VanHorn, K3CP, the then (1993) President of Chapter 17; Rivo "Bart" Bartolacci, W2SPK, Bart's wife, Mary; and Ray Bilger, W3TDF, Secretary-Treasurer, on the presentation of Bart's paid up dues card for 1993. Bart became a Silent Key this past July. Photo courtesy W3TDF.

CHAPTER 17, ALLENTOWN, BETHLEHEM, EASTON: We are sad to report the following Silent Keys:

Richard E. "Brownie" Brown, W3CJI, passed away on June 29, 1994, after several years of ill health. He was a life member of QCWA. For many years he was the owner of REBCO Printing in Allentown, PA. Who among us does not remember, at one time or other, seeing the ads in the various magazines for "Brownies QSLs?" The business goes on, since its changing hands a few years back. Brownie was the prime force in the new Chapter 17 becoming active in early 1989, and was elected our first President. He will be missed.

Rivo M. "Bart" Bartolacci, W2SPK, lost his long battle with paralysis on July 2, 1994. He had been in nursing facilities for the past 3 or more years, as a result of an auto accident and subsequent fall resulting in the paralysis from the neck down. Even while in the nursing home he was always ready to give something that was needed by one of the fraternity. After giving up an appliance repair business some years ago, he kept the store as a warehouse for all of the many treasures that he acquired at hamfests etc., and would offer them to anyone who he heard was in need. He, likewise, will be missed.

Respectfully submitted, Ray Bilger, W3TDF, Secretary-Treasurer.

CHAPTER 20, BALTIMORE, MD: This Friday, 13 May, despite its ominous portent, was a very enjoyable evening for the 42 Chapter members, wives and guests who got together for Baltimore Chapter 20's annual dinner-business meeting at Snyder's Restaurant in suburban Arbutus, MD.

Following the cocktail hour and bountiful buffet dinner we were thoroughly entertained by James Larduskey, an officer and former curator of the Baltimore Street Car Museum, who with stories, exhibits

and slides from the Museum's historical collection took us back to those street car days in Baltimore, fondly remembered my most of those in the audience. Remarks were heard that this was one of the best programs in recent years.

The business session presided over by Bill Gatton, W3QFF, Chapter President, featured the presentation of the QCWA Gold Award certificate to Lee Dorsey, N3BHC, our Chapter Vice President, for the 70-Year anniversary of receiving his first license. Roland Johnson, W3WA, is also eligible for the 70 Year Gold Award certificate, as is Camille Marie, W3EEI, and Harold Kemp, W3EEI, both for 60 Year Gold Award certificates. Their certificates had not been received in time for formal presentations.

Next social event of the year will be the annual cook-out at the QTH of W3EPR early in October.

Respectfully submitted, Bill Greene, WA4GHU, Secretary-Treasurer.



Lee Dorsey, N3BHC, left, Chapter 20 Vice-President, receives his 70-year Gold Award Certificate from William M. Gatton, W3QFF, Chapter President. Photo courtesy N3DIH.



Arlene, wife of Roy Burckhart, W8CZA, left, and Mel, W8MV, right, look on while Roy displays his 65-year award at the spring dinner meeting of Chapter 21. Photo courtesy N8DHT.

CHAPTER 21, CANTON, OHIO: Fifty-five members and guests attended Chapter 21's Spring dinner at the Chalet in the Valley in nearby "Amish Country."

A highlight of the evening was President Mel, W8MV, presenting Leroy Burckhart, W8CZA, his 65-Year award.

The featured speaker was Ms. Avis Boyd, Director-Community Relations, of Warner Cable Communications. Her presentation included various aspects of the newly enacted regulations which impact both customers and providers. She also addressed various

aspects of new technology including the so-called "Communications Super Highway."

Respectfully submitted, Myron R. Koyle, N8DHT, Secretary-Treasurer.

CHAPTER 23, WASHINGTON, DC: At 12:00 noon on Saturday the 11th of June, 25 members and wives of Chapters 23 and 91 gathered at a picnic hosted by outgoing National Director Ethel Smith, K4LMB. This has been an annual even looked forward to by many people for the past several years. Following a delightful meal, a short business meeting took place to honor the Silent Keys, and to discuss several topics. A format was circulated to introduce a biography for Silent Keys, as a monument to those who have passed away so they will not be forgotten. Schedules for future events were announced, namely, a mid-August meeting and the annual Christmas Party at the Ramada Inn, in Falls Church, VA, on December 17, at 12:00 noon.

Jack Kingman, W4JT, displayed a formal collection of early radio vacuum tubes depicting their evolution as improvements transpired.

Although the weather was not particularly cooperative, everyone thoroughly enjoyed the company of old friends. Again, I cannot thank Ethel enough for all the work she personally did to make this a perfect summer outing.

Respectfully submitted, Stan Brigham, W3TFA, Secretary-Treasurer.

CHAPTER 25, NEBRASKA: The Annual Meeting was held at the Knolls Restaurant in Lincoln on Saturday April 30th. The Officers and Board Members present were: Skip, W0KVM; Bob, K0IXY; Charlie, NGOM; and Dick, W0HXL.

There was a total of 51 people present at the Annual Meeting and it was a very enjoyable luncheon. Two very well known guest's were present. They were Leo Meyerson, W0GFQ, and Harry Snyder, W0RN. Skip read the treasure's report and a short tribute of silence was given for the recognition of Chapter 25 Silent Key's. Twenty eight of our members received Certificates of Tenure. Those present were: Mac, W0AP, with 60 years of hamming; Garold, W0WKP, with 55 years; Lyle, W0US, with 55 years; Gene, W0IOO, with 50 years; and Doc, W0LPF, with 50 years. Congratulations!

Next year is an election year. The Board of Directors will be required to present a list of nominations to the membership prior to the election. By the first of July, a Nominating Committee will have been appointed to prepare the list of nominees. The President, Vice President, Secretary, and Treasurer will also be elected. The Nominating Committee will provide a list of names to fill the positions of the four Officers and five Board Members. This is of significant importance to Chapter 25, so please give it serious thought.

We would like to initiate a "monthly board meeting on the air." This would have to be pre announced. Please give us your input during the Saturday morning net. It will help determine which Saturday of the month we will meet.

The monthly Omaha luncheon is held the 4th Thursday of each month at Anthony's Restaurant, 72nd and "F" Streets. The Lincoln monthly meeting is held on the second Wednesday of each month at the Pantry, 66th and Starr Streets. If there are other gatherings in other parts of the state, please let us know.

The ARRL Midwest Convention will be held in Omaha on October 14, 15, and 16. Skip has been meeting with the Ak-Sar-Ben Club Convention Committee to make sure that the QCWA is included in the activities. He has made arrangements with the Garden Cafe Restaurant for a luncheon room and buffet. There will be no program during the luncheon but will provide a chance for our members and friends to gather and have an eye-ball QSO. Skip has also made arrangements for a QCWA table near the registration area, which will

allow us to promote our organization. The luncheon buffet will be on Saturday, October 15th.

Please keep your National QCWA dues membership up to date. We had some difficulty awarding long service certificates to members of Chapter 25. National will not forward a certificate if the members dues are not current at National.

Please send me your comments and suggestions for the Chapter 25 Newsletter. I look forward to hearing from you.

Respectfully submitted, Dick Newsome, WØHXL.

CHAPTER 28, CENTRAL NEW YORK REPORT: Silent Key: Dransfield (Bill) Hamilton, W2HQY. I regret to announce the passing of our dear friend and member. Bill was a active and respected member of the chapter.

Central New York Chapter 28 held its Spring Luncheon at the Rusty Nail Restaurant in Cortland, NY, and was enjoyed by 19 members and spouses. It was an excellent social event with restaurant arrangements made by Art, WB2JSP. Highlight was the presentation of a Meritorious Achievement Service Award to Edwin (Herb-Ed) Preston, W2RIZ. Several door prizes were awarded.

Merle Rigby K2AOV agreed to assume the Secretary-Treasurer replacing Al Decker, W2PWN. Thanks to Al for a excellent job the past several years.

Respectfully submitted, Merle Rigby, K2AOV, Secretary-Treasurer.

CHAPTER 29, FINGER LAKES: Our Chapter continues to meet for eyeball QSOs and good food at Weber's Restaurant in Syracuse, NY on the last Friday of every month. The turnout has been excellent even during the winter months, with many wives and guests present at each luncheon. Chapter President, Edward Gersten, WB2MWW, and Secretary-Treasurer, Philip Noble, W2UKA, were re-elected for 1994. The 1993 Vice-President, Frank Sladky, W2YEU, declined another term, and Fred Adsit, NY2V, was voted in for 1994. Fred, whose former call was W2ZOJ, was vice-president and president of the chapter more years ago than he wishes to reveal. By the time our June 24th luncheon rolled around, all our snowbirds were finally back! To our surprise, former long-time chapter member J. Robert Bradley, W2ROO, now permanently residing in Florida, attended our June luncheon with his wife, having come north for a company reunion! Our gatherings are so lively with conversation, it is a wonder we manage to fit in a business meeting and get to enjoy our food! Invites are going out to all those in the area who are new and/or unaffiliated to join us in the Finger Lakes Chapter. Getting members to wear a badge is a challenge, but a few of us have purchased the new QCWA badges, which are very clear and handsome. I got the white bolo tie. It is a great sub for a tie, and also looks great with informal wear. Those of us with them would recommend them to all QCWA members! Phil, W2UKA, is a super Secretary, but could not be contacted in time for this submittal—I think he and his better half are on a well-deserved vacation! On behalf of the Chapter, our congratulations on the new look and content of the *QCWA JOURNAL* (Thanks!—Ed), and to the new officers!

Respectfully submitted, Fred Adsit, NY2V, Vice-President

CHAPTER 38, SAN ANTONIO: We normally meet at 11:30 AM on the fourth Saturday of each month at Wyatt's Cafeteria, 8511 Tesoro Drive. For confirmation of the date of the next meeting or for directions, call Jim Wright, K5CDT, at (210) 655-2346.

At our monthly meeting on May 28, 1994, Mr. Mel Mountjoy appeared in costume and presented an account of the life of Buffalo Bill Cody. A bit on the light side, it proved to be an enlightening program.

At the June 18, 1994 meeting, Mr. Ed Dylla, Attorney-at-Law, made an interesting presentation on the history of bankruptcy and the

fundamentals of current bankruptcy law. His presentation was followed by a spirited question and answer period.

At the July 23, 1994 meeting, chapter member Louis Kocurek, W5VIV, presented a videotape on the SR-71 "Blackbird." Those present found this to be a most interesting program on this recently-retired, historic aircraft.

Respectfully submitted, Jim Wright, K5CDT, Secretary.

CHAPTER 41, DALLAS: Dallas recently feted one of its most noteworthy social galas of the year, the QCWA President's Ball, at the five-star Mansion Hotel honoring the Chapter's new slate of officers and directors: Bob Olney, N5NT, President; John Alford, W5TXL, Vice-President; Walt Wiederhold, W5OGZ; Secretary-Treasurer, and Directors Al Markwardt, W5PXH, Lyn Ohlson, W5RYX, Ben Holloman, W5CP, and Ivan Harrison, W5HBE. A chapter-sponsored reception for the officers and directors was held the following weekend at Hilton Head, SC. Transportation for attendees was made possible by the Chapter's ever-busy Lear jet (*Who are you kidding, Bob?—Ed*).

Respectfully submitted, Bob Olney, N5NT, President



Activity was high at this year's Chapter 49 QCWA booth at the Southeastern Amateur Radio Conference. SARC was formerly the Atlanta Hamfest. Pictured, left to right, Verne Fowler, W8BLA, renewing his membership; Marvin Olendorf, W4HAH; Don Anderson, K4PSW, President of Chapter 100; and Wendell Cushing, K4VN. There were 37 QCWAers who signed the hamfest log representing the states of Georgia, Florida, South Carolina, Alabama, Tennessee, North Carolina, Louisiana, Mississippi, Illinois, and New York. Photo Courtesy an unknown QCWAer.

CHAPTER 51, TEX-LA GOLDEN TRIANGLE: This quarter all of the meetings were held at Dorothy's Front Porch, a local seafood restaurant specializing in Cajun cuisine.

At the May meeting Captain Glenn Tronstad, W5MSX, reported on our group's participation in Polly '94, the Gulf Coast area's emergency preparedness exercise. This year's scenario was that Hurricane Polly had made landfall 35 miles south of Port Arthur, requiring evacuation of our area.

Our program was presented by a local businessman who grew up in Port Arthur during the "Big Band Era." Playing excerpts from the familiar music he traced the brief (15 year) history of this true American art-form. He talked about the famous bands that appeared at the Port Arthur Pleasure Pier Ballroom and about his own experiences in organizing a group of teenage musicians who played in the local clubs.

At the June meeting Tom Clark, W5HFJ, reported on a bicycle touring-group traveling for Disney Land to Disney World that rode through our area. There were several hams in the group and Tom assisted with their communications while they were in the area.

At the July meeting Glenn Tronstad, W5MSX, told about our delegation's activities at the ARRL National Convention in Arlington, Texas. They attended the QCWA Breakfast and heard reports from

Vice-President Lew McCoy, W1ICP, General Manager Jim Walsh, W7LVN and *QCWA JOURNAL* Editor-in-Chief Joe Lynch, N6CL.

Respectfully submitted, Dub George, WA5BFF, President.

CHAPTER 63, CENTRAL OKLAHOMA: I regret to inform the membership of the passing of Joe McKinzey, W5YPN. Joe was my successor as president. He was well liked and respected by all Chapter 63 members. He will be deeply missed by all.

Joe Lynch, N6CL, wrote a tribute to Joe in his October Section Manager's column in *QST*. With permission from him, I quote from it here.

"It is always sad for me to write about Silent Keys. It is, however, especially sad when someone who is your friend joins the ranks. Joe McKinzey, W5YPN, was a friend of many of us in Oklahoma. He was the immediate past president of QCWA Chapter 63. Joe, who was very active in his church, had the respect of so many for his quiet display of his faith. He always had a kind word to say about everyone. I guess my fondest memory of Joe is my last one. On a Sunday afternoon about two weeks before his passing, several of us from the local chapter dropped by to see him at the nursing home. Norm Wilson, W5FLO, had brought by a two meter radio and a power supply. Unfortunately, something was wrong with the antenna so Carol King, K5CPZ, and I went by to see if we could help. Next Bob Ashby, W5HXL, came by with a homebrew antenna. Bob and I installed it alongside the closet and that one did the trick. Joe was absolutely entertained by the whole Keystone Kops routine of us chapter members. We miss you, Joe."

My thanks go to Norm Wilson, W5FLO, and Gene Nailon, K5DLE, for their assistance at Ham Holiday. I understand that the breakfast was a success with more than 20 Chapter 63 members in attendance.

Our next Chapter meeting will occur on October 22nd. Specific information will be forthcoming.

Respectfully submitted, Carol King, K5CPZ, President.

CHAPTER 64, EL PASO: We are sorry to announce that Andy Pflug, W5VTA, had an automobile accident and apparently suffered a heart attack. We are also pleased to announce that he had successful bypass surgery and is recuperating with his daughter Sandy in Albuquerque, NM. Sandy notified us this week that Andy must return to have other surgery on a completely different matter. We wish Andy a successful bout with surgery and our prayers are with him always. Hope everything works out fine and Andy gets on the road to complete recovery. We also want to thank Ed Bullard, Jr., W5KWF, who has been helping Andy to get on the air in Albuquerque by getting him a decent antenna up and also loaning Andy a rig while his equipment is undergoing repair. Andy has been checking into Chapter 64 QCWA Roundup Net on Saturday morning at 8:30 Mountain time on 3933 kHz.

Also we wish to report that Manny Gonzalez, W2BFI, has been in the hospital for a triple bypass and is recuperating well. Manny is co-chairman of the convention committee and we have missed him very much. Get well soon Manny, we need your help.

Chapter 64 along with Las Cruces Chapter 186 is working very hard to make our 1994 National Convention a great success. I am extending a special invitation to all QCWA members to attend this convention. There are a few things worth noting about events surrounding our convention. The Amigo Air Show will be held in El Paso on the weekend of October 1, 1994. Also, the International Hamfiesta will be held on the following weekend of October 9, 1994. For those coming by automobile or RV, the talk in frequency is 146.88 MHz. This repeater is solar powered and covers roughly 100 miles. The 146.62 MHz repeater has PL tone of 100.00 Hz. and is the backup. Congratulations to Millie Wise, W5OVH, on her election as a national director. Millie has arranged for Tom Comstock, N5TC of College

Station, TX to moderate an ARRL forum at this year's National Convention.

Tex Burdick, W5BQU, and Juanita are off to fishing in Alaska for the seventh or eighth time in as many years. We wish them lots of success on their trip and hope they catch plenty of salmon.

This article was originally submitted in April, but because of circumstances beyond our control, it was overlooked. It is resubmitted with appropriate changes. Our apologies to all concerned. We thank you for your patience and understanding.

Respectfully submitted, Bob Carroll, K5IE, President.



Chapter 65 picnickers, from left to right: Bill, W2EWT, Bob, W2OZT, Roger, W2RTD. Photo courtesy K2FJ/ZB2G.

CHAPTER 65, NIAGARA FRONTIER: Our sympathy to Stu (Doc) Farmer W2NW on the loss of his wife Marg. Doc is our very reliable Chapter 65 NCS.

Our thanks to Tom W2QI and Norm W2VEX, for representing our Chapter 65 in both the SSB and CW modes in the 1994 QCWA QSO Party. Come on gang and join the fun in next winter's QSO Party. Contacts can be used toward the QCWA Awards: worked 50 states, worked 100 members, worked 60 Chapters, and worked 500 members. Let your Secretary know if you have attained any of these.

The Chapter Officers and Directors encourage our members to assist us in locating and inviting prospective members in joining QCWA National and our local Niagara Frontier Chapter 65. The prestige, awards, publications and activities are quite worthwhile.

We are very happy to welcome to our Chapter 65 the following new members. Please up-date your roster. Todd Oldenburg, KK2I, of Tonawanda; Thomas Vince, VE3HM, of Thorold, Ontario; Robert Ward, K2PPK, of East Aurora (Elma). First licensed in 1935 as W8OMV. Retired from steel fabricating company; and David G. Sperry, WA2SHM, of Amherst. First licensed in 1961. Retired Industrial Arts teacher.

All members please join our Sunday net at 1:30pm local, on 3900 kHz.

Respectfully submitted, Ken Palmer, K2FJ/ZB2G, Secretary.

CHAPTER 70, NATIONAL CAPITAL: The last report from the National Capital Chapter 70 appeared in the Spring 1994 *QCWA JOURNAL*. Since that time we have held two meetings, one in February and one in May. The February meeting was chaired by VP Bill Barrie, VE3AAS—in the absence of President Croft Taylor, VE3CT—who was in the sunny south while we were in a deep-freeze up here in Ottawa.

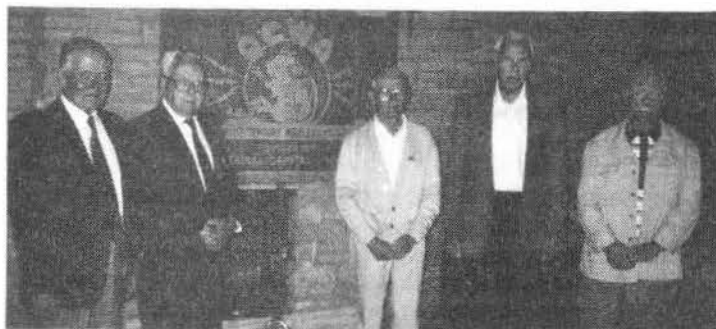
The speaker for the February meeting was Bill Wilson, VE3NR. His topic was "Radio Amateurs Code of Ethics." Bill had previously written an article on this subject that appeared in the February, 1994, issue of the *The Canadian Amateur*. Following Bill's introduction to the topic a very lively discussion ensued. The opinion of several members was that it would be a good idea to draft up a set of rules governing an amateurs operating practice on the air. It might be advisable to do this on an international level.

The speaker at the May meeting was George Roach, VE3BNO. George gave a very interesting illustrated talk on the

relocation of a local commercial AM 50KW solid-state transmitter. The reason for the relocation was because surveyors for a new four-lane highway had, in their wisdom, put the route right through the old transmitter site. George checked out 31 different sites before deciding on the new location.

In addition to the four annual dinner meetings, Chapter 70 wishes to remind any QCWA members that year-round weekly informal breakfast meetings are held Thursday mornings at the Embassy West Motel on Carling Ave in Ottawa at 9:30 AM. Visitors are welcome.

Respectfully submitted, by Keith Bedal, VE3GFI, Secretary-Treasurer.



Five of seven recent recipients of the 60th Anniversary awards in Chapter 70 are shown. From left to right, Jim Jarvis, VE3TI; "Doc" Plummer, VE3MA; Gord Grant, VE3DY; George Schuthe, VE3DMC; and Charles Poole, VE3OJ. Not shown: Bill Barrie, VE3AAS; and John Morgan, VE3JE. Photo Courtesy VE3GFI.



The shack of 9BIO as originally appeared. Photo courtesy WOAWP.

CHAPTER 79, SUNFLOWER: The Sunflower Chapter 79 Dinner meeting was held August 25, 1993. During the meeting, Al Unruh, WOAWP, was presented a 70-year Service Certificate.

Quoting Al Unruh, WOAWP, when asked for comments:

"Although my first license, 9BIO was issued in 1923, I actually started hamming in 1922, when a schedule with a would-be ham (later 9BRD) living about a mile away was made. We learned the code using bootleg low-power spark and galena crystal detectors. Bootleg stations were common in those days, some signing their initials in lieu of call letters.

"When the call 9BIO was received in 1923, the license was signed by Herbert Hoover, Secretary of Commerce. It was pre-prefixes, and pre-FCC. As shown in the photo, the rig used a UV-202 5-watt tube in a self-excited oscillator. Receiver was a 2-tube regenerative battery-powered affair. Antenna was a 3-wire flattop, over a 5-wire counterpoise. First contacts were made with raw 60-cycle AC on the plate, but later a 40-jar chemical rectifier requirement

was added. Spark stations were still legal, and DC plate supply came years later. We worked on 200 meters (now 1500 kHz in the AM broadcast band.)

"My friend 9BRD (now silent key) and I were active traffic handlers in the wee hours, and were shown in a map in *QST* as the hub for 'The most reliable traffic routes (in Kansas).' Thirty-two states were confirmed 1923-1925.

"The call 9BIO was allowed to expire in 1925, and the call 9AWP (still no prefix) was received in 1926. It later became W9AWP, and after W.W.II, WOAWP.

"After marriage in 1929 I was transferred from Newton to Wichita, Kansas by the A.T. & S. F. RR. By 1930 I was back with a QRP push-pull oscillator transmitter using UV 117A tubes. My first QSO was with W9EFK in Minneapolis. Recently, 61 years later, W0EFK (now silent key) and I had our second QSO.

"Gradually, the QRP transmitter was replaced by more power—eventually crystal-control came along. In April 1939 *QST* published a picture of my rig, in connection with state-high Sweepstakes score for four years—a RME-69 super het had been added. The 100TH final was crystal controlled. That was replaced by a band-switching exciter-buffer starting with ECO, and spot frequency contacts finally arrived. During the late '30s and early 1940s high power and twin "V" beams brought in lots of DX..

"After election to the office of SCM for Kansas in 1940, I served in that capacity until 1948, including the W.W.II years. Over age for W.W.II military drafts, and with frequent publication of my name in *QST* magazine, I received a great many communications and electronics job offers. The sudden demands of W.W.II brought about the realization that qualified people were in short supply. Friends affiliated with Boeing-Wichita, where the construction of a B-29 bomber factory had recently been completed, told me they had a job for me if I decided to leave the railroad. I accepted, and became one of a group that worked on the electronics on the first B-29. During the B-29 program I was privileged to be in the forefront of testing and troubleshooting the highly-classified and newly developed radar navigational and bombing equipment.

"During the period between Boeing's B-29 and B-52 production years I worked as a commercial CW operator for KGPZ. The Wichita Police department was a member of the (mostly west of the Mississippi River) inter-state police CW network. A nine-channel 2-KW RCA transmitter and National HRO receivers did a good job, but have given way to more modern techniques.

"With Boeing-Wichita's resumption of bomber manufacturing, now the B-52 (a plane that refused to become obsolete and was used in Desert Storm to subdue Iraq), I was one of the first electronics/radar test engineers to return and was involved in the design of a new test facility and electronics lab. I eventually became general supervisor of the electronics lab. I retired in 1968.

"As is often the case when a person's work and hobby become too similar, in the late 1950s my long-standing amateur radio hobby took a back seat, and we became involved in a new hobby of world travel and photography. I lost my wife to leukemia in 1992.

"Since returning to active ham radio in 1983, several objectives have been met, such as 9-band CW WAS (450 states confirmed), DXCC, and most recently USA-CA #725, all 3076 USA counties confirmed. Eight-band WAC (including 80 meters) was also accomplished.

"Station equipment is Kenwood TS440 with TS-830 for backup. A ground mounted Butternut HF6V is used on 14 MHz and higher bands, while a HF2V is used for lower bands. Each has 30 radials."

Respectfully submitted, Del Patterson, WOJCY, Secretary.

Editor's note: This report is a year old. It fell through the cracks during the transition between editors. My apologies go to Al Unruh, W0AWP, and the Sunflower Chapter. The following is the current Chapter 79 report.



Al Unruh, W0AWP, receives the 70 year recognition certificate from Jim McKim, W0CY, President of Chapter 79. Photo courtesy W0JCY.

The Sunflower Chapter 79 held its August 31, 1994 meeting at Our Family Restaurant in Wichita. It was attended by 28 members and guests. The Chapter serves south central Kansas, and many members are located considerable distance from Wichita. Jim McKim, W0CY, the Chapter President lives in Salina which is 90 miles north of Wichita. He is able to attend our meetings except in severely bad weather.

The program of the evening was a presentation by Mr. Jim Loop from the Kansas Aviation Museum. The Museum is housed in the former Wichita Air Terminal building which was built in 1929 and is an Art Deco structure. The Kansas Aviation Museum opened in 1991 and focuses on General Aviation. Wichita aviation companies produced most of the free world's single-engine aircraft, thus earning the city the title "Air Capital of the World." The museum displays aircraft and artifacts from the earliest days to the present and has an extensive research library.

Respectfully submitted, Del Patterson, W0JCY, Secretary-Treasurer.

CHAPTER 81, LONG ISLAND: Our regular meetings, held at a local restaurant, were well attended and successful. Among our speakers was Dr. Frederick M. Kruger, a chapter member. Dr. Kruger specializes in intelligibility enhancement, noise reduction, and associated testing. His staff includes a licensed audiologist. His topic hit the mark with us QCWA members. Hearing does become a problem.

Another guest speaker was Bob Stuhler, W2OQ, who gave a talk about gravity.

We welcomed new member Lew Reinberg, W2BIE, to the Chapter. Lew's face and form adorned the photo in the Barry's Electronics seen in the ham magazines for many years. He is currently the Customer Service Manager for Azden Corporation on Long Island.

The Chapter has made arrangements to have a special tour of the Brookhaven National Atomic Laboratories during August. It will be an exceptional outing.

Among our future speakers will be Mr. Steven Mendelsohn, WB2DHF, the ARRL Hudson Division Director.

We look forward to a splendid fall season with an even better winter season to follow.

Respectfully submitted, Sid Wolin, K2LJH, Secretary.

CHAPTER 87, EVERGREEN: As this is being read in the *JOURNAL*, summer will be on its last legs. Seem as if it was only yesterday that

spring disappeared. Ages can be estimated by how fast the seasons pass by.

Also, when you read this our Annual Summer Picnic will be history. This year in addition to our fine food and fun games we are trying something different. A Swap and Sell table is being tried. A portion of the sales will be donated to our Club for some unnamed use. More later on what success if any is achieved.

Haven't heard of any of our members who plan to attend the National in El Paso. Consideration is being given by your correspondent and another of our members. Time will tell if we make it!

Right on schedule the summer has attracted many of our group to climb into their RV's and "head for the hills." One who pops up from a new QTH almost every Sunday during Net check-in is Gerry, W7PCP. He has been heard from the northwest coast of Washington, the high mountains of Idaho, etc., etc. Good for you Gerry. Do it while you still can.

Another who doesn't have to travel very far is Lee, W7IDT. He, for many years has been the proud owner of a get-away home on beautiful Lake Pend O'Reille in Northern Idaho. Many of us would just stay there all summer and never come back to the Palouse.

Congratulations are in order for Jim, W6LLP, and his wife Karen who recently celebrated their (??) Wedding Anniversary. The celebration included a lengthy camping trip to Louisiana. One night they did use a Motel when the temperatures near the Arizona-California border hit 112° at bedtime.

Can you imagine going to the door on your birthday, being greeted by your son from out of town and being invited outside to see your birthday present? This happened to Jay, W7RWL, recently. When he went outside there stood a brand new Cadillac. Now that's a real surprise that not too many of us ever realize!

Pat, W7GVC, brought us up to date with an announcement that the Annual Walla Walla Sweet Onionfest was being held. Now for those of you who have never tasted a Walla Walla Sweet really have something to look forward to.

All QCWAers are welcome to our Sunday net on 3985 kHz at 0400 UTC.

Respectfully submitted, Al Cutting, W7ENO.

CHAPTER 95, EASTERN NEW YORK: Correction: In the Summer 1994 *JOURNAL*, we reported that George Fuller, W2BSH, (SK), had served at the first President of Chapter 95. While George was one of the principal founders, the first Chapter President was Newt Barnes, W2GM. We apologize for the error.

This incident has prompted us to begin an effort to document our Chapter's history. We will be contacting all of our senior members and inviting them to submit biographical information in whatever form (written or audio tape) is most convenient. Those who wish, will be personally interviewed. We also hope to accumulated historical documents and newspaper articles for incorporation into a Chapter history book. Members who have anything to contribute should contact Dick Lathers, KJ2T, or Bill Diman, WB1M.

The Chapter will be holding its formal Fall meeting at 1:00 PM, September 24, 1994, at the Schenectady Public Library, McChesney Room. On the agenda will be the election of officers.

Respectfully submitted, Bill Diman, WB1M.

CHAPTER 102, DAKOTA: Chapter 102 had seven members present at the QCWA luncheon hosted by Iowa Chapter 123 the Lee DeForest chapter at Sioux City, IA. Hamfest last May 14th.

Chapter VP Frank Shaw, NU0F presented beautiful hand-made wooden call sign plaques to QCWA NCS stations W0YMB, W0LX and N0HCR for their diligence in carrying on the chapter net each week. The net meets at 8:00 AM CT on 3889 kHz. each Sunday

and welcomes all check ins, chapter members, other QCWA members and interested parties.

Long time chapter member and past VP Al Gowan, WOLX, of Sioux Falls, SD, gave an extremely interesting presentation on some classic ham gear that he has collected over the past years. He donated an old, large, heavy 25,000 volt, 1 kW transformer of 1920 vintage to the Sturh Museum in Grand Island, NE through Chapter 25 VP John (Mac) McKinney W0AP.

Respectfully submitted, by Dave Dekker, KØERM, Secretary-Treasurer.



Pictured left to right, Chapter members are: Front row: Al Gowan WOLX, Milton "Mindy" Schauer WØYDG President, Blain Dinger WØBYP. Second Row: Dave Dekker KØERM, Secretary-Treasurer; Roland Cory WØYMB, South Dakota Section Manager; and Frank Shaw, NUØF, Vice-President. Not pictured but at the convention was Glenn Edland W6IVV. Photo courtesy KØERM.



Members of Chapter 106 and their wives are pictured in front of the cathedral at Regensburg, Germany. Photo courtesy DL3ME.

CHAPTER 106, GERMANY: Chapter 106 held its annual meeting this year in Regensburg, one of the oldest cities in Germany. About 50 members, mostly with their wives, attended the well organized meeting.

As the secretary and treasurer were not willing to continue in office, new members to achieve this work were to be found. No candidate for the office of secretary could be found, so the present, DL6KQ, took over this additional burden. For treasurer, Juergen, DL1JOE (Joe) was installed by acclamation.

Saturday followed the topic of the meeting by first a sightseeing tour through the city of Regensburg and then by bus to the harbor on the river Danube to board a motor ship in the direction of Weltenburg with its Asam Church and luncheon. Back to Kehlheim; bus drive to the Liberation Hall, further on to the old castle Randeck and then back to Regensburg. It was altogether a wonderful meeting. The next year's meeting is planned for either Muenster or a place in Belgium.

The meeting this year HamRadio at Friedrichshafen was a great success with a booth together with OOTC. The fair was attended by an estimated 20,000 visitors and about 200 passerbys at our booth from nearly around the world.

Next meeting will be the German Dutch Border meeting, DNAT, at Bad Bentheim, August 26-28 and then Interradio at Hannover again with a common booth with OOTC October 15 and 16.

Respectfully submitted, Gerd Jacoby, DL3ME.

CHAPTER 107, CENTRAL FLORIDA: With many members away for the summer months Chapter 107 has a social meeting but no business meeting each month. Our May meeting was our Founders Day program in which we honored our founding members. We had two of our founding members present Norm Darch W2HGV and Charles Chapman W4SVB. Norm and Charles both told about the good old days when they helped get the Chapter started. Our president Dan Child W3IUW listed the Founding officers of the Chapter. Our Vice-President Roy Coleman WA4OZA gave a background of the Chapter from records furnished by the secretary.

Our June and July meetings were strictly social gatherings that were well attended. In September we will be starting our Fall and Winter program. Hope to have more to report next time.

Chapter 107 meets the third Saturday of every month at 11:30 A.M. at Stacy's Buffet 4320 US Hwy. 98 North, Lakeland, FL. (one mile North of I-4). All amateurs and their spouses visiting our area are invited to attend.

Respectfully submitted, Jay Hitchcock, K8YGH, Secretary.

CHAPTER 108, BEAVER STATE: The Shilo Coffee Shop in Springfield, Oregon was the location of Beaver State Chapter 108's meeting on 16 July 1994 with President Gene Kelsey presiding. Twenty-seven members and guests were present. Members attending also included several from the South Willamette Chapter 178 as well as four others who hold dual membership in both chapters. Following a hearty lunch QCWA's General Manager, Jim Walsh, W7LVN led a procession to nearby Eugene, the home of the QCWA Headquarters where the group was given a guided tour of the facilities.

The building houses an office area where GM Jim, W7LVN and the secretary have positions at two computers for processing and storing the corporations records and data, an area housing supplies of badges, caps, tea shirts, etc.; in another room is the computer for the QCWA BBS and FAX activities as well as the recently activated QCWA Amateur Radio Station, W2MM/7, with its ICOM 751A transceiver. Of particular interest is the BBS information available to all QCWA members who register with the BBS; this includes an incoming and outgoing mailbox, recent announcements, list of newest members, miscellaneous interesting program files, etc. Members utilizing computers with their radio equipment can take advantage of these QCWA facilities with a telephone line modem. A very interesting and informative tour was had by all participants.

The next quarterly meeting will be the Beaver State Chapter's Annual Meeting which includes the election of officers for 1995 will be on 15 October 94 in Albany. Contact the Secretary for the specific location and other details.

Respectfully submitted, Fred Dickson, W7LBH, Secretary.

CHAPTER 109, BATON ROUGE: The weekend of June 25 and 26 many of the hams in our area participated in Field Day on the River Road below LSU at the Brec Farr park. Walter "Pharaoh" Spencer, KC5ZZ, president of the Baton Rouge Amateur Radio Club and David Assaf, WA5LMH, immediate past president of the club provided the essentials for the crowd.

The Baton Rouge Hamfest was the scene for an enthusiastic gathering of QCWA members and guests at a buffet breakfast on May 22. The group applauded Bill Ooforth, W5URR, when he was presented with our Member of the Year certificate for 1994. Bill has been a faithful net control station for our Sunday nets (3905 kHz at 8:30 a.m.

and 146.79 MHz at 8:00 PM local time) for many years in addition to his many other contributions to our chapter.

On July 9, the Baton Rouge Chapter held a joint meeting with our new neighbors, the Cajun Chapter 189 of Lafayette, La., at Robin's Restaurant in Henderson, LA. The gathering was a first for this group. We enjoyed meeting members of the new chapter and their ladies and greeting old friends. Many of these hams hold membership in both chapters.

We regret to announce the passing of one of our most faithful members. Johnny Bourg, K5CRF, became a Silent Key last month after a long illness. Our love and sympathy go out to his wife, "Miss Dottie" Bourg, K5EPR, who is also a member of our Chapter.

Out apologies go to Caroline Oubre, KA5IJU, and to Joy Breau for mislabeling the photo which appeared in the Spring, 1994 issue of the *QCWA JOURNAL*. The photo should be labeled "Al Oubre, K5DPG and Joy Breau, wife of Rick Breau, N5RLM, President of the Cajun 189 Chapter of QCWA." As they say in the newspapers, "We regret any inconvenience caused by this error."

Respectfully submitted, Shirl Cook, K5OPL.

Editor's note: A photo was supplied with this report but with no caption. We regret we could not run it without the caption.



Officers of the Yankee Chapter 112 are, left to right: Joe Santangelo, NIJS, Sunshine Fund Administrator; Chuck Walbridge, KIIGD, Secretary; Len Hadley, W1YGC, President; Gladys Chase, W1VPF, Treasurer; and John Stacy, W1KIM, Vice-President. Not pictured: Chet Tammany, K1LII, Board Member-Activity Director and Al Fruzzetti, K1JJJ, Net Control. Photo courtesy KIIGD.

YANKEE CHAPTER 112: Our annual meeting was held on April 30th at the Franklin Manor in West Boylston, Massachusetts. Twenty-five members and guests enjoyed lunch and fellowship. A business meeting followed with election of officers for next year. Serving will be: President, Len Hadley, W1YGC; Vice President, John Stacy, W1KIM; Treasurer, Gladys Chase, W1VPF; Secretary, Chuck Walbridge, KIIGD; Activity Director, Chet Tammany, K1LII. Al Fruzzetti, K1JJJ continues as Net Control. Also the members approved a change in the dues period from a fiscal-year to a calendar-year basis.

A number of Yankee Chapter members achieved the milestone of 60 years as an amateur radio operator in 1994. They are: Don Hines, W1FRZ; Alden Roys, N1IDA; Olof Johnson, W1JY; John Siau, WB2APU; and Edward Murphy, W1LO. Congratulations to you all!

Two Silent keys to report for the year. Philip Broeg, W1HBB, and Herbert Nordholm, W1IAO. We extend our sympathy to the family and friends of these two gentlemen.

All five New England chapters were represented at the annual summer picnic held this year at the Otter Brook Recreational Area in New Hampshire. The host chapter was Nutmeg, Chapter 149. Thirty members and friends attended. Food and fellowship were in abundance. The committee planning the 1995 National Convention also met.

As a reminder to the New England chapters, a Sunshine Fund exists to provide a friendly outreach to members and families suffering illness or personal loss. Contact Gladys Chase, W1VPF, Treasurer of the Yankee Chapter, or Joe Santangelo, NIJS, Fund Administrator, as the need arises.

Respectfully submitted, Chuck Walbridge, KIIGD, Secretary.

CHAPTER 114, NORTH TEXAS: The North Texas Chapter 114 is alive and well and held a most successful meeting Saturday, July 16, at Ryan's Family Steak House in Lawton, Oklahoma.

President Charles Neal, W5NRI, presided. Joe Ward, W5AAX, gave the invocation and David Combs, W5VJW, read the minutes and a financial report. Joannie Sleeper, WB5PHM's wife, held her customary African violet drawing, and the flower was won by Bebe Combs, W5VJW's wife.

Attendance for the meeting was outstanding, with 29 members and guests present. The president had each person present stand and introduce himself. Several QCWA membership application forms were passed out.

In a brief Chapter business session, the President appointed a nominating committee for 1994-1995 chapter officer which included: Cecil Cash, W5PML, chairman, Clarence Powell, W5QJY, and Herb Sleeper, WB5PHM. Other business included a motion by Cecil that the High Plains Chapter 141 be contacted and plans made for the third annual joint meeting with our Chapter to be held in Childress, Texas, the third Saturday in September.

The speaker was Dr. Jim Chambers, N5ESE, an MHMR psychologist at Wichita Falls State Hospital. Dr. Chambers gave a very interesting talk in which he said that patients at the hospital had declined from some 3,000 several years ago to around 300 at present. He said the area served by the facility extends all over North Texas, from Fort Worth to the Panhandle. He said that most of their patients were either schizophrenic or manic-depressive, and he briefly described treatments for each. Dr. Chambers then took questions from the audience, and participation indicated a great deal of interest.

This outstanding meeting was arranged by Cecil Cash, W5PML, and the Chapter thanks is extended to him.

Check-ins are welcomed to our local net at 1330 local on Saturdays on 3942 kHz.

Respectfully submitted, David Combs, W5VJW, Secretary-Treasurer.

CHAPTER 122, LAKE ERIE TRI-STATE: The Chapter held its Spring Meeting at the American Legion Hall, Union City, PA, Saturday, April 23. There were 23 attending the luncheon meeting including wives and one visitor, Tom Schiewe, K3JKN. Jerry Owens, AB3X, Chapter President, called the meeting to order and after prayer, soup, salad, and sandwiches were enjoyed by all.

Following lunch, Jerry made a few remarks concerning programs for the balance of the year. A picnic was planned for July 17 at Meade Park in Corry. The 15th Anniversary Meeting is planned for October 29th in Erie. The Board of Directors will provide additional information later.

Charles Willet, W1ESP, was commended for 61 years of service in Warren County for Amateur Radio Community Service.

Following the luncheon, the meeting adjourned to the Union City Historical Society for a conducted tour of history by Tom Shiewe and his wife. The meeting adjourned following the tour.

Respectfully submitted, John Stager, W3ZBF, Secretary-Treasurer.

CHAPTER 126, PIEDMONT: The summer meeting of the Piedmont Chapter 126 was held at the Best Foods cafeteria in Silver City, NC, at noon on June 28, 1994.

President Walter VanGieson, AB4DQ, presided. A pledge of allegiance to the flag was led by Coleman Thacher, W1HZQ. After an invocation by Ed Naher, K8YFR, an excellent cafeteria meal was enjoyed. A total of 21 members and their wives attended. Charles Bryges, W4WXZ, gave a report on our Sunday morning net participation. There were 153 check-ins during the past three months, for an average of 11.76 check-ins per net.

A donation to the Red Cross in memory of Guy Blencoe, W4HVU, was decided. The president read an obituary from Guy's funeral.

For a program, Marvin Heller, coordinator of emergency communications for Wake County, NC, gave an interesting and informative talk on the part communications plays in coordinating the efforts of all emergency services. He also gave an interesting history of how a universal emergency telephone number evolved in the rest of the world as well as in our country. He gave excellent recognition to the part Amateur Radio operators play in support of other emergency communications.

Respectfully submitted, Wilbur Fulton, W2SE, Secretary.

CHAPTER 138, CENTRAL NEW JERSEY: A tour of Fort Monmouth was arranged by Chapter President Phil Petersen, W2DME, and took place on Tuesday, August 16 just prior to the Chapter quarterly luncheon meeting. About 25 members met at Kaplan Hall which houses the Fort Monmouth museum. Beverly James of the Public Affairs Office gave us an interesting overview of all of the activities presently taking place at Fort Monmouth. The list was impressive and we learned that Fort Monmouth has the largest payroll in the county. We also learned that this area is called "inventors alley" due to the large number of engineers and scientists employed by the Fort and by Bell Labs.

Mindy Rosewitz then gave us a tour of the museum which highlighted the colorful history of Fort Monmouth from 1917 to the present time. Originally named Camp Little Silver, it served as a training camp for World War I. As it specialized in communications, it was renamed Camp Vail in honor of Alfred Vail who worked with Morse in the early development of telegraphy. Finally, to commemorate the Battle of Monmouth during the Revolutionary war, it was renamed Fort Monmouth.

There were many interesting things to see at the museum from early radios and notebooks of Major Edwin Armstrong to captured radio equipment used by Iraq during Desert Storm. We not only saw a replica of the SCR-271 RADAR used at Hawaii prior to Pearl Harbor but were treated to reminisces by Tony Colaguori, W2GUM, who worked extensively on this RADAR development and accompanied the first units to Panama.

Finally, Chapter 138 member Gerry Silverman, WB2GYS, led us through the extensive MARS facility at the Fort and described the role played during Desert Storm. Gerry emphasized the importance of volunteer help to keep the stations on the air and to run the thousands of phone patches.

We then regrouped and met at Howard Johnson's for a delicious lunch and a short business meeting. A guest at the meeting was John Kelleher, W4ZC, National QCWA Director. On November 1, 1994, John Kelleher becomes National Vice President with Lew McCoy, W1ICP, becoming National President. John is also president of the Society of Wireless Pioneers (SOWP). John was asked to say a few words about where he sees QCWA going in the future. He emphasized two important points:

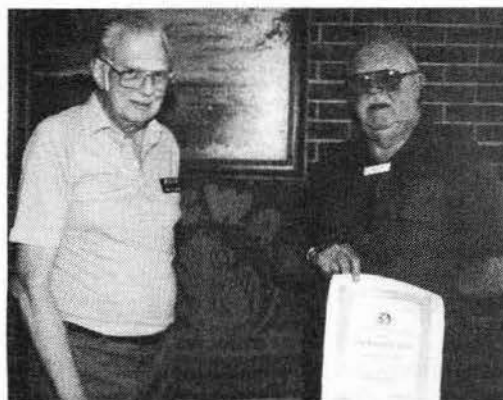
1. He would like to see QCWA grow in number of active members. It has been relatively static at 10,000 for the last several years.

2. He intends to nurture the scholarship program since this is so important to young people coming into the hobby.

We asked John to pass on our appreciation for the outstanding job being done on the National *QCWA JOURNAL*. We also asked that National consider a Diamond Jubilee award similar to our chapter award (no dues payment if at least 75 years old and at least 50 years continuously licensed).

Finally, John warned us that our frequency bands are in jeopardy with the rising popularity of wireless personal communications. He emphasized that we should be especially careful about using amateur radio for any commercial use (even those now permitted by law) since it could be used against us by commercial interests to obtain our frequencies. John Kelleher, a former resident of Red Bank as W2DSV, joined Chapter 138 after the meeting.

Respectfully submitted, Bob Buus, W2OD, Vice President.



President Marv Oehring, W1GEN, left, presents Harry "Bud" Cudney, W2IWA, with his 50 year Golden Certificate.

CHAPTER 148, HERNANDO: The March meeting of Hernando Chapter 148 was held on the 16th with 35 members and guests attending.

We are sorry to report that Al Kuchare, W2EKO, became a Silent Key on March 23rd. He was a member of the Board of Directors and had just recently received his 60 year Golden Certificate.

Our "Bye Bye Snowbird" picnic was held on March 30th and was attended by 31 members and guests.

At the conclusion of our March meeting, President Marv Oehring, W1GEN, presented Harry "Bud" Cudney, W2IWA, with his 50 year Golden Certificate.

Respectfully submitted, Marv Oehring, W1GEN, President.

CHAPTER 149, NUTMEG: Five Chapter Picnic, July 23, 1994. On Saturday, July 23, the five New England Chapters joined for their Third Annual Picnic. It was held at the Otter Brook Recreation Area near Keene, NH. It was hosted by the Nutmeg Chapter and included Yankee, Pine Tree, Twin State, and Pioneer Chapters. There were 45 members and guests in attendance.

Although this was a completely informal and fun affair, we did discuss plans for the 1995 QCWA National Convention, scheduled for Manchester, NH, October 13-14, 1995. All five of the New England

Chapters will be involved in staging the Convention with Gladys Chase, W1VPF, and Blanche Randles, W4GXZ, directing the planning.

We were entertained by Betty, K2DGW, and Gregg, W1DGC, who played many favorite songs—Betty on the French horn and Gregg on his accordion. By the way, she toots a mean “Hi” on that thing when you aren’t looking! (It kind of separates the CW ops from the SSBers!)

A rainstorm held off until we concluded our activities, so we enjoyed a very pleasant day with lots of conversation among friends. Pine Tree Chapter will host next year’s picnic at a location to be selected by that chapter.

Respectfully submitted, Milt Chaffee, W1EFW.

CHAPTER 154, LEO I. MEYERSON: Plans are underway for the Annual Chapter Luncheon, scheduled for Saturday March 4, 1995, at the Erawan Garden Hotel, Indian Wells. The event has drawn more than 200 participants from the southern California and Phoenix areas the past several years, and Chairman Don Doughty, W6EEN, predicts an even larger turnout in 1995.

A pre-luncheon, no-host cocktail reception has been scheduled for the Friday night before the main event. The latter takes the place of the barbecue formerly held at the Doughty estate in nearby Bermuda Dunes. Two seminars of interest to amateurs will be held prior to the Saturday luncheon.

In mid-July Doughty and his wife, Phyllis, visited with Chapter namesake, Leo Meyerson and his wife, Helen, in Omaha. The stay included tow tours through the Western Heritage Museum established in Omaha, which includes extensive exhibits of old-time ham radio gear and telephone equipment. Doughty suggested to Curator and Executive Director Philip Kwiatkowski that a ham station be installed, possibly even one that might be considered a QCWA Official Station under proper future sanction. The matter deserves some consideration, Doughty believes.

QCWA members were active in the week-long July fires in the San Bernardino Mountains that received national publicity. More than 80 Amateur Radio operators participated in the communications portions of the fire with net control and EC, Don, W6EEN, in the Coachella Valley mainly responsible for recruiting and dispatching operators.

Respectfully submitted, Sidney Rose, W9VKC.

CHAPTER 162, SOUTHEAST WISCONSIN: The regular monthly meeting of Chapter 162 was held at 7:00 PM, May 16, at the Around the Clock Restaurant in Racine, attended by 12 members and one wife. Revision of the Chapter banner to include date of establishment of the chapter was discussed and will be pursued. It was noted that two new members, John Urban, KE9HX, and James Taylor, K9JT, have joined the Chapter.

On June 20 at 6:00 p.m. an informal meeting of the chapter was held at the rural home of Ken, N9NBC, and his wife Marbeth, attended by 16 members and wives and two guests. The mosquito invasion experienced during this activity in 1993 was not noted this year until after the meeting had ended. A charcoal grill provided by Ken was used to cook entrees, and other potluck dishes provided the rest of an excellent meal.

A report on the successful 3 day ham radio demonstration for school children at: their camp-out at Mukwonago, WI was presented by Larry, WA9JMO. HF, VHF, packet and CW demonstrations were presented by six chapter members. The chapter two-meter beam recently acquired worked well, as did the HF multi-band dipole. Bill, W9ERG, offered to donate additional coax to the Chapter.

Steve, K9ZL, presented a very interesting display of his paintings and drawings.

An informal gathering of chapter members took place at 6:00 p.m. July 18 at the Around the Clock Restaurant In Racine to celebrate the visit of our Florida member, Ed Westberg, WA9Y, and his wife Ceil. Seventeen members and wives enjoyed a fine meal and conversation with Ed and Ceil, who will be returning to Florida shortly. No formal meeting was held and no business was transacted.

Respectfully submitted, Bob Jensen, W0WLN, Secretary-Treasurer.



Bob Jensen, W0WLN, shows a just received packet message to school children at the Amateur Radio demonstration for 150 students at Phantom Lake Ranch, Mukwonago, Wisconsin, May 1994. Photo courtesy W0WLN.



The ten members who attended the Third Quarter meeting are: Standing, left to right, Dennis Cooper, K3NVJ; Gary Green, K3IIB; Ray Shaub, W3AXC; Ed Kirby, W3YQJ; and John Shaffer, W3SST. Seated, from left to right, John Munnell, W3HSR; Frank Bair, K3DGI; Paul Stump, W3AQN; Bill Barefoot, W3UQJ; and John Zett, W3FLD. Photo courtesy Ed Kirby, W3YQJ.

CHAPTER 165, YORK, PENNSYLVANIA: Chapter 165 held its Third Quarter meeting for 1994 at Rudy County Park, PA, on June 11, 1994. There was a total of 19 people that attended (ten members and nine wives).

A dinner of hamburgers, hot dogs, and bring-dish of various items, were enjoyed by all. After eating, President Cary Green, K3IIB, conducted a business meeting. The rest of the day was consumed by the picnic.

The picnic adjourned in the afternoon with everyone having a well spent day.

Respectfully submitted, Ed Kirby, W3YQJ, Secretary-Treasurer.

CHAPTER 166, COLONIAL: The Chapter had it's annual picnic on 27 July at the QTH of Bill Findley, W3FEA. We had 40 members and their wives in attendance. Jim, W3AOA took care of the catering and

that left everyone free to have fun and relax. No work for the gals, how nice. Walter Brink, W3WPY, our Director, was here and briefed us on the happenings at Headquarters. Also, we ran a contest to come up with a Chapter logo. The contest was won by Paul, W3VVS, who was given the first copy of the new logo framed and a check for \$50.00. Howard, W3IGW, our President announced that we were going to have a breakfast meeting for members only to conduct our business matters.

We regret to report that Fred Shaw, W3ADV, is now a Silent Key. He will be missed he was an active member and well liked by all.

Everyone at the picnic gave a standing ovation to our Joe Lynch, N6CL, Editor-in-Chief of the *QCWA JOURNAL*. We all feel that we truly have a top notch publication to read and are proud to present to the ham community world-wide.

Respectfully Submitted, Charlie Stouth, W3ZPP.

CHAPTER 168, OREGON TRAIL: The annual election of Chapter officers was held at our luncheon meeting on 23 April 1994 at the Old Country Buffet in southeast Portland. There were 12 Chapter members and their guests present. Bill Payne, K7TDO, was re-elected to serve as president. Fred Behrman, K7LNS, was chosen to serve as secretary-treasurer, replacing Dale LeBaron, W7FBP, who chose not to run for another term.

Our next scheduled luncheon meeting will be 15 October 1994 at the same location in Portland, 11358 SE 82nd Ave. Time will be 11:30 AM. All QCWA members and guests are invited to attend.

The chapter membership has been declining and we need to recover those dropped out members. It appears that those who do not attend our luncheon meetings do not have the opportunity to pay their dues to the secretary-treasurer and are dropped from the rolls. In the future, a self-addressed envelope to the secretary will be mailed along with the meeting notice to all chapter members past and present. Let's hope this approach will remedy this situation and encourage the payment of chapter dues.

After our meetings, we have a drawing for the door prize and more socializing. At the last meeting, the door prize was an ARRL Repeater Directory won by Fred, K7LNS. Please plan to attend our upcoming meetings.

Respectfully submitted, Fred Behrman, K7LNS, Secretary-Treasurer.



The following were at the summer picnic of Chapter 174: Standing; Art, N9BCA (guest, President of Central Wisconsin Radio Amateurs); Kathy, wife of WA9LWJ; Tom, K9CJM; Dolores Wendt, wife of Ernie, W0LUY; and John Feltz, WA9LWJ, President of the Chapter. Seated: Ernie, W0LUY, Marie Sheerar, wife of K9JPS; Kathy Lust, wife of K9KGM; Frank, W9BCC; Lew, K9JPS, Les, K9KGM, Bob, N9UAR; and Tanya Foster, daughter of N9UAR. Photo courtesy W9NN.

CHAPTER 174, WISCONSIN BADGER: Chapter 174 had its summer picnic at Lake Dubay on the Wisconsin Rover on July 16. This

was the first annual summer gathering. It was a successful time. Badger Chapter supplied beverages, while members brought a dish to pass. John Feltz, WA9LWJ, was the cook on the grills. The weather was great and everyone had a great time. On the picture were not all the gang. Some had walked down to the water. This includes the following: Gene, K9UTQ; Craig, N9MHB; and Harvey, N9FHO.

Respectfully submitted, John Feltz, WA9LWJ, President.

CHAPTER 176, HANGING JUDGE: It is with great sorrow that I pass the news of the passing of Margaret Burks, KI5OC. Margaret Evangeline Burks was one of the Charter members that started the Hanging Judge Chapter. She served as Secretary from its inception, and was also secretary for the Fort Smith area Amateur Radio Club. She will be missed by all that knew her.

Respectfully submitted, Chet Tausinger, WA7WFU.

CHAPTER 181, HUDSON VALLEY: A Chapter meeting was held on June 18 at Allies Restaurant in the Marriot Hotel, Tarrytown, NY. it was attended by 24 members and guests. The membership roster on this date was 44.

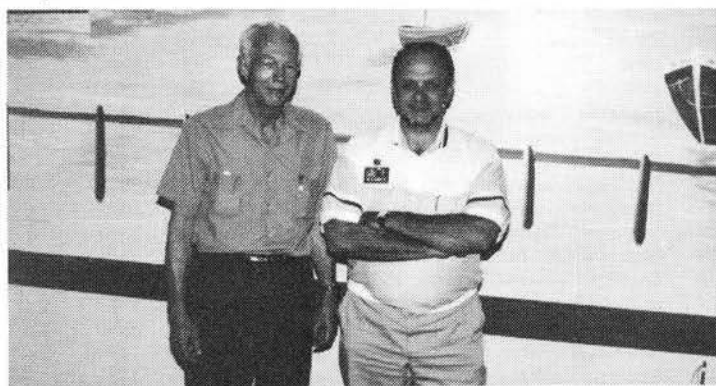
The speaker, Peter Stanford, President of the National Maritime Historical Society, presented an absorbing account of the sea-borne side of the Normandy Beach landings. This history-making invasion of the European continent occurred just 50 years ago. A special Certificate of Appreciation was presented to Peter following his talk by Dick Robinson, W2OZA.

Two members, Dick O'Brien, NJ2J, and Jerry Mulberg, W2MJP gave short accounts of how and when they became interested in ham radio and qualified for their first licenses. Dick was W6OEU in 1936 and Jerry was W2MJP in 1939.

The Chapter deeply regrets the loss of Herb Nordholm, WI1AO. We share this loss with Yankee Chapter 112 and Founder's Chapter 46. Herb was an active member of our Board of Directors. He was a few months over 88 years old when he died in Greenwich Hospital on June 27. His first ham call was 2BHI, issued in 1922. Herb was recognized as one of the outstanding builders of fine homes in the Greenwich area.

After a drawing for several worthwhile prizes was conducted by Harry Moore, W2JQS and Stan Egelberg, W2WQK, the meeting was adjourned.

Respectfully submitted, Dick O'Brien, NJ2J, Secretary, Chapter 181.



Roy Hill, W4PID, Secretary-Treasurer, left, and Bill Price, WA4MCZ, President, are pictured at the fall meeting of Northeast Tennessee Chapter 182. Photo courtesy W4PID.

Please be sure your Chapter Report arrives by November 1, 1994 in order for it to be included in the next issue of the JOURNAL. Thanks.

Chapters on the Air

NR	Name	Day	Time	NC	Freq.	NR	Name	Day	Time	NC	Freq.
	QCWA CW	WED	2000E	varies	7035	81	Long Island QCWA Chapter	SUN	1130L	W2TLC	3917
	Florida SSB	SAT	1300Z	W4NWF	3955	81	Long Island Chapter	FRI	2030L	K2YAW	147.33
	QCWA SSB	SUN	2000Z	varies	14347	84	Floralia Chapter	MON	1930L	KF4BU	146.28
	Florida SSB	WED	1500Z	W4NWF	7274	85	Ark-La-Tex Chapter	MON	2100L		146.67
	NE Regional	SUN	0845L	W2AUF	3917	87	Evergreen Chapter	SUN	0700L		3985
1	Cleveland Chapter	WED	2000L	W8NZD	146.88	89	Palmetto State Chapter	SAT	0900L	W4DNR	3927
2	Chicago Area Chapter	3TH	2130L	W9MOL	147.15	89	Palmetto Chapter	SUN	1700L	N4LS	3695
4	Northwest Chapter	SUN	1630Z	W7PN	3655	90	Razorback Chapter	SUN	1300L	W5MYZ	7227
4	Northwest Chapter	SUN	2000Z	W7FNC	3952	91	Vic Clark Chapter	SUN	0900L	K4JAP	146.79
4	Northwest Chapter	SUN	2300Z	W7AZI	3952	92	Northern Lights	THUR	1900L		39800
5	Delaware Valley Chapter	SUN	1000L	W2EEQ	3917	92	Northern Lights	SUN	2000L		146.97
6	Pittsburgh Chapter	SUN	1330Z	W8CSU	147.63	95	Eastern New York	SUN	1130L		3900
7	Southern California	SUN	1000L	W6ZRZ	146.805	96	Gateway Chapter	SAT	1600Z	W2KGI	3933
7	Southern California	SUN	1100L	K6BA	3695	102	Dakota Chapter	SUN	1300Z	W0HOJ	3889
8	Upper Midwest Chapter	SAT	0800L	W0KHG	3877	104	Treasure State	SAT	0900L	W7DB	3938
9	Southwest Ohio	SUN	1330L	W8DWT	3987	106	German Chapter	TUE	1730Z	DJ2ZB	3555
10	Michigan Chapter	SUN	1200Z	varies	3903	106	German Chapter	MON	1700Z	DL9AR	3663
11	Northern California	SUN	0930L	WA6AFT	3907	107	Central Florida	THUR	1230L		14245
12	Southeast Florida	WED	2030L		146.76	107	Central Florida	SAT	0900L	W4LHP	7243
14	San Diego Chapter	WED	2030L	K6QM	145.52	108	Beaver State Chapter	WED	0800L	KM7T	3908
16	Arizona Chapter	SUN	0700L	W7ER	3890	109	Baton Rouge Chapter	SUN	2000L	W5URR	146.19
19	Missouri Chapter	WED	1900L	N0AQH	147.15	109	Baton Rouge Chapter	SUN	0830L	W5URR	3905
20	Baltimore Chapter	MON	2100L	WA4GHU	147.285	110	Kansas Chapter	SAT	1330Z		3920
21	Canton Ohio Chapter	THU	1930L	K8UDO	146.79	112	Yankee Chapter	SUN	0830L		3902
25	Nebraska Chapter	SAT	1430Z	W0EUT	3983.5	114	North Texas Chapter	SAT	1430Z	WB5PHM	3943
27	Houston Chapter	THU	1930L	W5CCD	3866	117	Appleseed Chapter	SUN	2030L	W8JYY	147.36
28	Central New York	SUN	1030L	varies	3917	118	Coastal Carolinas	SAT	0900L	W4EHF	3895
30	West Virginia Chapter	SUN	1500L	W8CCR	3865	120	Qtr Cty Wireless Women	TUE	1900Z	K4KUU	14295
31	Reading Chapter	MON	2100L	W3BN	146.91	122	Lake Erie Tri-State	SUN	0930L	W3QPP	3915
32	Gator Chapter	SAT	0900L	varies	145.29	123	Lee Deforest Chapter	SAT	0730L	K0DBW	3885
33	Gunderson Penn-Jersey	DAILY	2000L	W3TI	3982	126	Piedmont Chapter	SUN	0845L		3935
35	Midcontinent Chapter	THU	1930L	W0WHK	146.97	128	Pelican Chapter	MWF	1600L	K9BSL	145.29
36	Northwest Indiana	4WED	1900L	N9MRS	147.495	128	Pelican Chapter	SAT	1000L	K9BSL	145.29
37	Harrisburg Chapter	WED	2100L	K3IUY	147.12	130	Inland Empire	FRI	1600L	AA6J	3862
38	San Antonio Chapter	SUN	2030L	W5HRF	28650	130	Inland Empire	SAT	0800L	AA6J	3862
41	Dallas Chapter	SUN	0715L	varies	3835	131	Gulf Coast Chapter	TUE	0900L	WF4V	28750
44	Hoover Dam Chapter	MON	2000L	W9RU	145.39	134	Pine Tree Chapter	SUN	1430L	W1OGT	3942
45	Citrus Chapter	TUE	1930L	WB4DRF	147.195	135	Mid-Michigan Chapter	TUE	2000L		146.70
46	Founder's Chapter	SUN	0915L	W2DP	3917	136	Austria Chapter	WED	1700Z		3720
46	Founder's Chapter	THU	2030L	W2AUF	147.36	138	Central New Jersey	TUE	2200L	W2DME	147.045
48	Treasure Coast	DLY	1500Z		7153	140	Wyoming Chapter	SAT	1500Z	W7MZW	3923
49	Atlanta Chapter	WED	2000L		145.41	141	Hi-Plains Chapter	SAT	0900L		3933
49	Atlanta Chapter	SAT	0900L	K4VN	3857	142	Northwest Ohio	WED	2000L	K8JA	145.58
51	Tex-La Golden Triangle	MON	1830L	W5MSX	146.70	143	North Colorado Chapter	SUN	0830L	N0CG	145.115
51	Tex-La Golden Triangle	SUN	0930L		7.157	146	Twin State Chapter	SUN	0830L	WA1NBI	3898
52	Mississippi Gulf Coast	THU	2030L		147.225	149	Nutmeg Chapter	SUN	1130L	W1KHL	3923
54	Tyler Chapter	SUN	0800L	W5CNO	3835	150	Del-Mar-Va Chapter	SUN	0900L	W3BY	146.28
54	Tyler	MON	1930L	W5RRM	28.650	151	Wild Rose Chapter	MON	2000L		3747
54	Tyler	MON	1900L	W5RRM	28.150	152	Royal Palm Chapter	MWF	0800L	K4FA	14178
55	Wisconsin Chapter	SUN	0830L		3985	152	Royal Palm Chapter	TU-TH	1300L	W4LZV	14178
58	Colorado Chapter	SUN	0900L	W0WSK	3905	152	Royal Palm Chapter	MWF	1300L	W4LZV	7220
58	Colorado Chapter	SUN	0930L	varies	146.07	154	Leo Meyerson Chapter	THUR	1830L	W9VKC	145.480
60	East Tennessee	SAT	0900L	AA4WX	7233	157	Pony Express Chapter	SUN	0830L	W0GGP	3955
61	Detroit Metro Chapter	SUN	0800L	W8IHX	3663	160	Utah Chapter	SAT	1730Z	W7FVM	7272
62	Suwannee Chapter	SAT	0900L	W4PFJ	3940	162	Southeast Wisconsin	THU	2100L	W9NVK	147.27
63	Central Oklahoma Chapter	SUN	0800L	varies	3855	162	Southeast Wisconsin	THUR	2100L	(ALT)	146.58
63	Central Oklahoma Chapter	THUR	1900L		145.41	164	Big Bear Lake Chapter	SUN	1900L		224.02
64	El Paso Chapter	SAT	0830L	varies	3933	164	Big Bear Lake Chapter	SUN	1900L	WA6NLG	147.33
65	Niagara Frontier	SUN	1330L	W2NW	3900	165	York County Pennsylvania	WED	2100L	W3AXC	146.97
70	National Capital	THUR	2000L		147.03	166	Colonial Chapter	WED	1400L		147.21
73	Southern Ontario	SUN	0900L	VE3AGS	3773	167	Gold Coast of California	WED	1930L	KI6YN	147.885
73	Southern Ontario	SUN	1300L	VE3MO	7088	172	New Orleans Chapter	TUE	1900L		146.61
75	Central California Coast	SAT	0800L		3917	173	Golden Triangle Chapter	TUE	1930L		147.255
76	Blue Ridge Chapter	SAT	1300L		7180	174	Wisconsin Badger	SUN	1600L		146.82
77	Northern New Jersey	THU	2000L		147.285	181	Hudson Valley Chapter	SUN	0815L	W2OZA	3917
77	Northern New Jersey	SUN	1300L	W2OJW	3917	183	Pioneer Chapter	SUN	1030L	W1ALL	3923
79	Sunflower Chapter	WED	2100L		146.82	184	Bay Area Chapter	SUN	1830L		146.64
						187	Golden Isles Chapter	WED	1900L		3920

Is your net listed properly? Is your net listed at all? If not, please send net information to: QCWA, P. O. Box 73, Oklahoma City, OK

73101.

New Members

Date	Mem NR	Name	Call	City	St.	Sponsor	Sponsor's Call
06/03/94	26793	Altig, Gary L	N7UWL	Reno	NV	Larry E Oakley	W7AAA
06/03/94	26794	Aznoe, Edgar T	WA7I	Reno	NV	Don Freeman	WS2Z
06/03/94	26795	Blazer, Richard H	KB7RWF	Globe	AZ	Ethel Smith	K4LMB
06/03/94	26796	Morin, Jon	N1RLQ	S Paris	ME	-	-
06/03/94	26797	Nickerson, Herbert D	NS1P	Wilmington	MA	Joe Santangelo	N1JS
06/06/94	26798	Bailey, Edward Mack	WB4LAF	Newcastle	AL	-	-
06/06/94	26799	Eakin, Jim	W6SBY	San Lorenzo	NM	-	-
06/06/94	26800	Usdam, David A	K4ZLD	Memphis	TN	-	-
06/06/94	26801	Betzina, Wallace	W7ZJD	Tenino	WA	-	-
06/06/94	26802	Dailey, Robert F	N6AZB	Portland	OR	-	-
06/06/94	26803	Dow, Murray Lee	AA7HT	Vancouver	WA	-	-
06/06/84	26804	Nace, Roger	K7AYC	Sumner	WA	-	-
06/06/94	26805	Packard, David H	W7MNS	Milwaukee	OR	-	-
06/06/94	26806	Willsey, Robert L	W5VRA	Martha	OK	-	-
06/06/94	26807	Blount, Douglas A	KG7TX	Springfield	OR	-	-
06/06/94	26808	Brule, Gilbert	WA7BLW	Hoquiam	WA	-	-
06/06/94	26809	Shoemaker, John	KG7GD	Irrigon	OR	Merle R Mc Laughlin	W7DNY
06/07/94	26810	Sholar, Lynn	K17HP	Cathlamet	WA	-	-
06/07/94	26811	Bartlett, Walter H	WA1WSX	Reno	NV	Donald Freeman	WS2Z
06/07/94	26812	Chilson, Gary D	WB2HNL	Davie	FL	-	-
06/09/94	26813	Campi, Lawrence	WA5TRX	Kenner	LA	Stan Pape	AA5PN
06/10/94	26814	Hayworth, Charles G	K4MPJ	Winston-Salem	NC	Carl Starnes	W4EAT
06/10/94	26815	Heinsohn, Vern	WA0ZWW	Wichita	KS	Jim Mc Kim	W0CY
06/10/94	26816	Ralston, Kenneth W	WA9ZGU	Indianapolis	IN	-	-
06/10/94	26817	Weggel, Robert J	W9ZZJ	Scandinavia	WI	Frank L Guth	W9BCC
06/13/94	26818	Dymowski, Henry A	K2QWR	Lawrenceville	NJ	Don Field	W2UAE
06/13/94	26819	Brown, Fred A	K5ONC	Houston	TX	-	-
06/13/94	26820	David, John L	KB5LYB	Hutchins	TX	-	-
06/13/94	26821	Gent, David	W5QZ	Houston	TX	-	-
06/13/94	26822	Mac Allister, Andy	WA5ZIB	Houston	TX	-	-
06/13/94	26823	Scarcella, Mike	WA5TWT	Sugarland	TX	-	-
06/13/94	26824	Stietenroth, W A	K5ZTY	Houston	TX	-	-
06/13/94	26825	Westfall, James	NT5V	Dallas	TX	-	-
06/13/94	26826	Houston, Russell J	N3NXW	Levittown	PA	D G Field	W2UAE
06/13/94	26827	Vodenik, John R	WB9AUJ	Mason	OH	Fred L Haney	AC4IC
06/14/94	26828	Reed, Larry	KC4VL	Owensville	IN	-	-
06/16/94	26829	Bowman, Leonard Overman	WA5YSS	Denham Springs	LA	-	-
06/16/94	26830	Johns, Donald C	WB6FKR	Riverside	CA	Arlo K Myers	WA6UDR
06/20/94	26831	Leutz, William	WA8BJW	Bowling Green	OH	Paul Lentz	K8PL
06/20/94	26832	Stewart, Orville A	KA9ONQ	Milwaukie	WI	Ed Seruga	KE9JJ
06/20/94	26833	Gordon, Griffith L	K4VX	Hannibal	MO	Leo I Meyerson	W0GFQ
06/20/94	26834	Gordon, Marie Girard	NS0Z	Hannibal	MO	Leo I Meyerson	W0GFQ
06/20/94	26835	Pierce, Gary L	K6CAQ	San Diego	CA	Joe Lynch	N6CL
06/21/94	26836	Tate, Ron	K4AUW	Largo	FL	J Frederick Strom	K9BSL
06/22/94	26837	Perrault, Terry L	WA6MNV	Retsil	WA	-	-
06/22/94	26838	Young, Delos P	WA7KMY	Seattle	WA	-	-
06/27/94	26839	Dietrich, Fred J	NM6J	Palo Alto	CA	Kelsey Smeltzer	KK6AW
06/27/94	26840	Mauk, Terry A	W18Q	Toledo	OH	Robert N Hanson	K8ADK
06/27/94	26841	Moss, J W	WA5YSK	Lewisville	TX	-	-
06/27/94	26842	Parsons, John B	K3OTY	Pittsburgh	PA	-	-
06/29/94	26843	Henry, Richard	NJ7D	Ocean Park	WA	Carl E Young	K5HK
06/29/94	26844	Tompkins, Jon	KC7AP	Louisville	KY	Blanche Randles	W4GXZ
06/30/94	26845	Madera, Victor	KP4PQ	Guaynabo	PR	Jose Toro	KP4RK
07/01/94	26846	Corney, Roy E	KB0MWL	Palisade	CO	W N Bramwell	W7QHC
07/01/94	26847	Reid, Glen	K5HGB	Austin	TX	-	-
07/06/94	26848	Andrea, Dan	WA0PWS	Easton	KS	James E Mc Kim	W0CY
07/06/94	26849	Dresbach, Richard Neil	WA7KCD	Reno	NV	Don Freeman	WS2Z
07/06/94	26850	Gebhart, Paul H	N8DUH	Hardy	AR	-	-
07/06/94	26851	Johnson, Neal A	W0BIQ	Kansas City	MO	Bill Mc Grannahan	K00KB
07/06/94	26852	Povlick, Timothy R	WA3INX	Mc Murray	PA	-	-
07/08/94	26853	Neel, William B	AD4OH	Ridgeway	SC	-	-
07/08/94	26854	Rosseter, Ted M	KK4JZ	Lakeland	FL	John R Spark	W4LHP
07/11/94	26855	Hickam, J Frank	N3RSD	Wilmington	DE	-	-
07/11/94	26856	Cutter, Robert C	K10G	Glenwood Spgs	CO	-	-
07/11/94	26857	Feruski, Raymond	KB8NKK	Cleveland	OH	-	-
07/11/94	26858	Johnson, Thomas A	KE8VK	Ashtabula	OH	Al Zimmerman	W8UYN
07/11/94	26859	Smith, Sanford	WA8COK	Univ Hts	OH	Al Zimmerman	W8UYN
07/14/94	26860	Bowder, David G	WA0UKE	Omaha	NE	John W Ferrel	W0YDV
07/14/94	26861	Chambers, Ronald W	KE5IR	Midland	TX	-	-
07/14/94	26862	Place, Gerald M	KL7AL	Wisconsin Rapids	WI	-	-

Date	Mem NR	Name	Call	City	St.	Sponsor	Sponsor's Call
07/14/94	26863	Thorne, Robert A	K9DAF	Neenah	WI	Maurice J. Mead	W9FBC
07/14/94	26864	White, Charles M	W5LPU	Houston	TX	Luther S Pully	W5JIZ
07/15/94	26865	Nordstrom, Ronald F	WA3LPF	Mechanicsburg	PA	Glenn R Kurzenknabe	K3SWZ
07/15/94	26866	Urban, John M	KE9HX	Greendale	WI	Art Vahovius	W9VSO
07/18/94	26867	Kennedy, Dave	N2TFP	Little Silver	NJ	Phil Petersen	W2DME
07/18/94	26868	Harper, John D Jr	W4NIQ	Fayetteville	TN	Allan Peterson	WA4CUQ
07/18/94	26869	Maynard, David A	KB5KO	Orlando	FL	-	-
07/18/94	26870	Mc Donell, Joan W	WA6QKC	Thousand Oaks	CA	Esther Given	W6BDE
07/18/94	26871	Vance, Owen D	WA8PHW	Dayton	OH	Carey R Alexander	K8DOT
07/19/94	26872	Cowan, Will	W5HNV	Austin	TX	Lou Pecenka	N5ORG
07/20/94	26873	Coad, Tim	NU6S	Cupertino	CA	John Coad	WB6NMH
07/21/94	26874	Carpenter, Thomas Bruce	W3YVV	Harmans	MD	-	-
07/22/94	26875	Louis, Heinz	DK4KW	Aachen, Germany	-	Otto Sailer	DL8AJ
07/22/94	26876	De Pascale, Aniello	K1NFE	Burlington	CT	Milt Chaffee	W1EFW
07/25/94	26877	Cornell, Max A	K0MC	Marina	CA	Philip L Kellen	K6CJ
07/25/94	26878	Dobson, John C W	W8WEJ	Vienna	WV	Ed Wilhelm	W8VT
07/25/94	26879	Eisenberg, Joseph I	WA0WRI	Lincoln	NE	Leo I Meyerson	W0GFQ
07/25/94	26880	Valliant, Dennis	AA5VA	Albuquerque	NM	Donald Grab	K5BIS
07/26/94	26881	Andrejko, Victor E	K8YYK	Cleveland	OH	Rocky Zimmerman	W8UYN
07/27/94	26882	Sprau, Richard W	KG7PQ	Reno	NV	R J Davis	KG7IY
07/28/94	26883	Bird, Stephen R	WA7LHZ	Phoenix	AZ	-	-
07/29/94	26884	Worden, James E	WB7BAB	Lake Worth	FL	-	-
08/01/94	26885	Altarac, Arthur	WA2KXE	Long Beach	NY	Sidney Wolin	K2LJH
08/01/94	26886	Haas, Harold H	KA4OES	Atlantic Beach	FL	John Silsby	K4YTB
08/01/94	26887	Nemetz, Gerald Earl	W4NEX	Lynchburg	VA	-	-
08/04/94	26888	Hardie, Leslie	WA7ELV	Eugene	OR	-	-
08/04/94	26889	Coker, Robert W	WA5ZNZ	Mineola	TX	-	-
08/04/94	26890	Hampton, Martin E	AA9KS	Opdyke	IL	-	-
08/05/94	26891	Conrad, Jack	W8SOA	Roswell	GA	-	-
08/05/94	26892	Davidson, Ronald L	K4HRB	Loganville	GA	-	-
08/05/94	26893	Lockwood, Jim	KM6NK	Rockmart	GA	-	-
08/08/94	26894	Beavers, Norm	W3DYA	Tyler	TX	Harry J Meyers	K5VPH
08/08/94	26895	Berkey, Clarence D	WB8TRJ	Seven Hills	OH	Rocky Zimmerman	W8UYN
08/08/94	26896	Boughner, Robert B	WA9LSD	N Fort Myers	FL	Blanche Randles	W4GXZ
08/08/94	26897	Mathis, John N	K0ZPO	Choctaw	OK	Jay Ingram	W5QVS
08/08/94	26898	Molledahl, James A	AB5FS	Altus	OK	Norman M Wilson	W5FLO
08/08/94	26899	Seaton, James A	W4KQL	Flowery Branch	GA	-	-
08/08/94	26900	Thiel, Joseph F	N5SMN	Austin	TX	Louis Pecenka	N5ORG
08/08/94	26901	Banks, Samuel E G	WA1INL	Shelton	CT	-	-
08/08/94	26902	Setinc, William R	WB6VQX	Rialto	CA	-	-
08/13/94	26903	Senande, Jesus Mendez	EA1JO	Lugo, Spain	-	-	-
08/13/94	26904	Wise, R W	K7QYN	Tucson	AZ	-	-
08/15/94	26905	Thomas, Robert G	W3QZO	Philadelphia	PA	Alan Bubeck	K3GNM
08/15/94	26906	Zapisek, John	K2MM	Cupertino	CA	John Troster	W6ISQ
08/16/94	26907	Abercrombie, Charles G	KK4NO	Statesboro	GA	Charles B Johnson Jr	WA4ECG
08/16/94	26908	Hanau, Rudolf	K2EVY	Rye Brook	NY	Dick O'Brien	NJ2J
08/16/94	26909	Reed, Richard O C	WB8YXF	Portsmouth	VA	-	-
08/18/94	26910	La Fleur, Walter	W3EVD	Silver City	NM	Lew Mc Coy	W1ICP
08/18/94	26911	Cochran, R A	W6GGO	El Dorado	CA	-	-
08/18/94	26912	Hough, Harry G	W6HZM	Sarasota	FL	-	-
08/19/94	26913	Abe, Fumi	JA1AEQ	Tokyo, Japan	-	Jerrie Stonier	K6INK
08/19/94	26914	Striley, Dean F	K0RN	Brooklyn	IA	Lawrence C Wacha	K0EDO
08/22/94	26915	Lipp, Robert E	K4MJO	Oakton	VA	Buddy Smith	W4YE
08/22/94	26916	Martel, William C	WA2JFX	Whitehall	NY	Blanche Randles	W4GXZ
08/22/94	26917	Moresi, William J	N6FER	Danville	CA	Charles Unfried	K6IGJ
08/22/94	26918	Parr, Stanley H Jr	W3MJR	Wernersville	PA	Albert Brailer	W3UQC
08/22/94	26919	Witwer, Bruce H	W6WFW	Yuba City	CA	-	-
08/23/94	26920	Boyles, Joseph M	N8UTR	Willis	MI	-	-
08/23/94	26921	Holloway, Donald	WB8EYM	Kalkaska	MI	D R Christensen	W8WOJ
08/23/94	26922	Villiard, Fred P	K3CVY	Dillsburg	PA	Glenn R Kurzenknabe	K3SWZ
08/24/94	26923	Silva, E J	K7HRW	Reno	NV	Bob Davis	KG7IY
08/25/94	26924	Black, David	K0DLJ	Cedar Rapids	IA	John Ely	W0GN
08/25/94	26925	Goodman, Edward A	N5NUG	Dallas	TX	Lew Mc Coy	W1ICP
08/25/94	26926	Palmquist, Douglas	KG5VI	Los Lunas	NM	-	-
08/26/94	26927	Rose, Ernest A	W1IZH	New City	NY	-	-
08/29/94	26928	Battishill, Dean	W5LAJ	Silver City	NM	Lew Mc Coy	W1ICP
08/29/94	26929	Schweigert, Merv	K9FD	Red Bud	IL	Jim Glasscock	W0FF
08/30/94	26930	Merritt, Robert C	K0YBX	Aspen	CO	-	-

Is your friend's name listed as a member of QCWA? Is your name listed as a sponsor of a new member? President Lew McCoy, W1ICP, has made it a goal of the organization that every member recruit a member. If we all recruited one member, we would double our membership. If we all recruited one member every quarter, we would have 50,000 members in a year. So, locate the membership blank in the center of this issue and hand it to your friend the next time you see him or her for coffee. (If your friend joins, offer to pay for the coffee.) We will look for your call in this section in the next issue of the JOURNAL.

Chapters by State and Country

(According to the Chapter Secretary's QTH)

STATES

Alaska	
92	Northern Lights
Alabama	
88	Tennessee Valley
40	Alabama Chapter
Arizona	
16	Arizona Chapter
Arkansas	
158	Central Arkansas
171	Western Ozark
90	Razorback Chapter
California	
144	Long Beach Chapter
177	Floyd "Lucky" Henderson
154	Leo Meyerson Chapter
130	Inland Empire
99	Central Valley Chapter
169	Sacramento Valley
14	San Diego Chapter
11	Northern California
161	Marin Sonoma
164	Big Bear Lake Chapter
7	Southern California
75	Central California Coast
167	Gold Coast of California
157	Pony Express Chapter
Colorado	
143	North Colorado Chapter
58	Colorado Chapter
Connecticut	
149	Nutmeg Chapter
Florida	
32	Gator Chapter
12	Southeast Florida
45	Citrus Chapter
48	Treasure Coast
96	Gateway Chapter
120	Quarter Century Wireless Women
111	Palm Beach Chapter
152	Royal Palm Chapter
84	Floral Chapter
148	Hernando Chapter
82	Sailfish Chapter
121	Highlands Florida
80	Caloosa Chapter
107	Central Florida
62	Suwannee Chapter
173	Golden Triangle Chapter
53	Suncoast Chapter
66	Spaceport Chapter
131	Gulf Coast Chapter
128	Pelican Chapter
69	Everglades Chapter
Georgia	
100	East Georgia
49	Atlanta Chapter
187	Golden Isles Chapter
Iowa	
123	Lee DeForest Chapter
Idaho	
87	Evergreen Chapter
Illinois	
59	Central Illinois
2	Chicago Area Chapter
34	Joliet Chapter
179	Southern Illinois Chapter
Indiana	
36	Northwest Indiana
159	Northeast Indiana

Kansas	
110	Kansas Chapter
35	Midcontinent Chapter
79	Sunflower Chapter
Louisiana	
172	New Orleans Chapter
85	Ark-La-Tex Chapter
189	Cajun Chapter
109	Baton Rouge Chapter
Massachusetts	
112	Yankee Chapter
183	Pioneer Chapter
Maryland	
150	Del-Mar-Va Chapter
20	Baltimore Chapter
23	Washington Chapter
Maine	
134	Pine Tree Chapter
Michigan	
135	Mid-Michigan Chapter
10	Michigan Chapter
74	Muskegon Chapter
Minnesota	
8	Upper Midwest Chapter
Mississippi	
133	Magnolia Chapter
52	Mississippi Gulf Coast
Missouri	
19	Missouri Chapter
180	Foothills of the Ozarks
Montana	
104	Treasure State
North Carolina	
76	Blue Ridge Chapter
126	Piedmont Chapter
118	Coastal Carolinas
Nebraska	
25	Nebraska Chapter
Nevada	
44	Hoover Dam Chapter
190	Silver State Chapter
New Hampshire	
146	Twin State Chapter
New Jersey	
77	Northern New Jersey
138	Central New Jersey
5	Delaware Valley Chapter
New Mexico	
186	Mesilla Valley Chapter
94	Roadrunner Chapter
New York	
46	Founder's Chapter
42	Mohawk Valley Chapter
181	Hudson Valley Chapter
65	Niagara Frontier
95	Eastern New York
29	Finger Lakes Chapter
28	Central New York
81	Long Island QCWA Chapter
Ohio	
39	Akron Chapter
9	Southwest Ohio
71	Central Ohio
117	Appleseed Chapter
1	Cleveland Chapter
21	Canton Ohio Chapter
142	Northwest Ohio
Oklahoma	
63	Central Oklahoma
176	Hanging Judge
Oregon	

175	Oregon Coast Chapter
188	Lost River Chapter
108	Beaver State Chapter
168	Oregon Trail
178	South Willamette Chapter
153	Crater Lake Chapter
Pennsylvania	
31	Reading Chapter
33	Gunderson Penn-Jersey
122	Lake Erie Tri-State
37	Harrisburg Chapter
6	Pittsburgh Chapter
166	Colonial Chapter
165	York County Pennsylvania
17	Allentown-Bethlehem-Easton
South Carolina	
89	Palmetto State Chapter
South Dakota	
102	Dakota Chapter
Tennessee	
182	Northeast Tennessee Chapter
60	East Tennessee
115	Chattanooga Chapter
Texas	
64	El Paso Chapter
72	Fort Worth Chapter
41	Dallas Chapter
38	San Antonio Chapter
101	Coastal Bend Chapter
27	Houston Chapter
129	Waco Chapter
156	Old Coyotes Chapter
114	North Texas Chapter
141	Hi-Plains Chapter
54	Tyler Chapter
67	Austin Chapter
51	Tex-La Golden Triangle
184	Bay Area Chapter
Utah	
160	Utah Chapter
Virginia	
137	Shenandoah Valley
155	Virginia Chapter
119	Tidewater Virginia
91	Vic Clark Chapter
Washington	
170	Central Washington
4	Northwest Chapter
103	Fourth Corner Chapter
West Virginia	
30	West Virginia Chapter
97	Southern West Virginia
Wisconsin	
55	Wisconsin Chapter
174	Wisconsin Badger
162	Southeast Wisconsin
Wyoming	
140	Wyoming Chapter

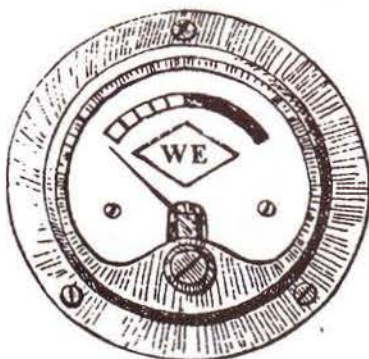
COUNTRIES

Canada	
151	Wild Rose Chapter
70	National Capital
98	Dogwood Chapter
73	Southern Ontario
Austria	
136	Austria Chapter
Germany	
106	German Chapter

Silent Keys

We regret to inform you of the passing of these our fellow members. Note: "*" indicates life member and "^" indicates the exact date of the member's passing is unknown.

Name	Call	Mem NR	L	SK	U	Name	Call	Mem NR	L	SK	U
Gladding, E B	W1BBV	04060	*	1994	^	Davis, Mike	W5KJR	22708		1994	
Hinds, Donald E	W1FRZ	20440		1994		Burks, Margaret E	KI5OC	23911		1994	
Oehring, Marvin P	W1GEN	09467		1994		Ellis, George O	W5OOF	14828	*	1994	
Holland, Harry F	W1GUJ	19140		1994	^	Tinsley, Chas N	W5OSA	07021		1994	^
Callum, Merrill	W1IAE	08551		1994	^	Medcalf, William E Sr	W5SKX	14411		1994	
Nordholm, Herbert V	W1IAO	12967	*	1994		Kelley, Charles H	W5SPK	25111		1994	^
Guthrie, David	W1JN	24999		1994		Wise, Larry	K5UYH	16542		1994	
Walther, Carl S	W1OPZ	04827	*	1994		Mc Kinzey, Joseph F	W5YPN	09099		1994	
Szarek, Walter R	W1RL	06950		1994	^	Whitaker, Frank R	W5ZI	07864		1994	^
Johnson, Les E	K1TZH	05532		1994							
Caywood, R W	KA1UP	01643		1994	^	Wessels, A L	W6BUM	02830	*	1994	^
Jackson, W E	W1WCI	15331	*	1994		Burgman, Elmer H	W6EB	06379	*	1994	^
Zimmerman, Edward S	W1ZFK	20062		1994		Platt, Paul O	WA6HCV	18337		1994	^
						Stewart, Emma	KA6IDL	15063		1994	^
Toman, Joseph J	W2ANX	00229		1994	^	Dixon, Francis C	W6KE	10825		1994	^
Stanley, Lee W	W2ECM	07174		1994	^	Storrs, Ernest N	KM6MD	25357		1994	
Batterson, George G	W2GB	07175		1994	^	Stansberry, William A	W6NSP	03197		1994	^
Judge, Le Roy A	W2GIC	03190		1994	^	Esten, Perry W	W6PN	10938		1994	^
Terry, Cyril W	AA2GN	26127		1994		Jackson, Elliott W	K6QI	03944		1994	^
Koczon, William	W2HWQ	09396	*	1994		Stevens, Herbert H	W6RSP	17372		1994	^
Mc Donald, Louise	K2IMI	16220		1994	^	Culmone, A J	W6TSO	06303		1994	^
Yates, Dwight F	W2PIX	01960		1994	^	Gorham, Robert L	W6UC	07319		1994	^
Le Bron, Nicolas	W2PJN	10758		1994	^	Lauman, Irving F	W6VPK	06535		1994	^
Kerr, Edward B	W2QUH	00309		1994		Harkless, Ralph	K6YCS	17052	*	1994	^
Bartolacci, Rivo M	W2SPK	22238		1994		Wade, Leonard M III	WA6YEM	23028		1994	^
Miller, William A	WB2SXT	12634		1994	^	Hickinbottom, Stanley	WB6ZCYC	10444		1994	^
Menner, William S	K2YMQ	23523		1994							
						Pevoto, Floyd K	W7CLW	15685		1994	^
Ferguson, John F Jr	W3AEV	00991		1994		La Verne, F L	W7DRD	02760	*	1994	^
Brown, Richard E	W3CJI	01869		1994		Pomeroy, Ronald H	W7EUH	26033		1994	
Boring, Clyde H	W3DJF	21155		1994		Strong, D E	W7IM	12638		1994	
Hertzberg, Joseph M	N3EA	04726		1994	^	Padgett, M M	W7LAM	05875		1994	^
Hagelberg, Edwin	W3IUT	19289		1994		Sheldon, Eldridge O	W7PPH	07068		1994	^
Schuler, Otto L	K3SMB	19830		1994	^	Murphy, Clarence T	K7QKA	20126		1994	^
						Angell, Morris L	W7TV	01836		1994	^
Nichols, George Bruce	NY4A	25581		1994							
Herrald, Art H E	AA4AN	15961		1994		Travis, Carl E	K8CWI	15710		1994	
Verthein, Arthur L	K4CNK	25156		1994		Lingan, James F	AC8K	15369		1994	^
Webb, John L	W4DDQ	05014		1994	^	Zeller, Robert L	W8MHM	16373	*	1994	
Dwyer, Joseph F	N4EXW	17826		1994	^	Parker, William Edward	K8NCV	19957		1994	
Davis, A H	W4GQ	06126	*	1994	^	Fox, Gary K	W8NDI	20642		1994	^
Pentecost, Joseph V	W4GYE	12092		1994	^	Kocik, Steven W	W8OPC	17203		1994	
Blencoe, Guy M	W4HVU	00264	*	1994		Businger, J Paul	W8QZK	22018		1994	^
Baldwin, Charles A	W4JAZ	05362		1994	^	Hansley, George S	W8SVW	13829		1994	
Pilgrim, Forrest D Sr	W4JD	00298	*	1994		Struze, Walter H	W8ULH	14174		1994	
Bernard, Herbert F	W4JXA	20230		1994		Lyon, John Bower	W8YGR	03427		1994	^
Santos, Jose P	K4KOI	04870		1994	^						
Jezorek, Len L	W4LC	00175	*	1994		Travis, Ed B	W9ADO	05731		1994	^
Hastie, Edgar G	W4LZT	06582		1994	^	Walters, Raymond A	W9GU	08010		1994	^
Matrangola, Francis J	WA4MYG	14094		1994	^	Biesendorfer, A W Jr	W9HBI	16581		1994	^
Debicki, Alfred F	K4PZV	23013		1994		Park, S D	K9KKN	02787		1994	
Mc Neely, James W	K4ZIR	26617		1994		Carnahan, Edwin W	W9LKX	07147		1994	
						Head, Cornelius M	WB9ZQE	23348		1994	^
Schilling, Ralph	W5AFK	12893	*	1994							
Huff, Bartow H	W5AHD	07354		1994	^	Benham, Ernest R	W0DXC	06213	*	1994	
Holt, L J	W5AKR	01605		1994	^	Parsons, Frank R	W0EMS	06361		1994	^
Putnam, Cecil R	N5CP	10012		1994	^	Gray, John H Jr	W0IDW	23585		1994	
Bourg, Johnnie J	K5CRF	16441	*	1994		Mehner, Richard A	W0KPK	14107		1994	
Freeman, George A	W5CBO	11657		1994	^	Poppert, Howard H	W0VQR	13990		1994	
Dodds, Luke B	W5HKA	11524		1994	^	Lane, Juanita B	WB0WWD	17569	*	1994	
Dougharty, Marvin E	W5ITA	07596		1994	^						



THE WIRELESS EXCHANGE

Guidelines for Exchange Use are:

- (1) List your antique or vintage needs and wants clearly and simply,
- (2) List what you will accept in trade,
- (3) List your asking price if no trade is possible,
- (4) If you advertise, hold the merchandise long enough for members to receive their *JOURNAL* and read this column,
- (5) Answer all inquiries.

There is no cost to QCWA members.

Hosted by: J. Douglas Hensley, WJ5J, 5678 College Drive, Baton Rouge, Louisiana 70806

For Sale or Trade

For Sale: Power supply components for continuous heavy duty service. Plate xfmr (Chicago) pri-105-120V sec-780-0-780V @ 250 ma (5"x5"x5"), \$45. Filter chokes, Chicago, 10 Hy. 250 ma. 100 Ω s (3"x4.5"x4"), 2 @ \$20 ea. Sangamo filter caps, 4 mfd @ 1 KV (1.25"x3.75"x3.82") w/mtg bracket, 2 @ \$10 ea; power xfmr (Kenyon) pri-105-120V sec-580 V.C.T. @ 80 ma w/ 6.3 v 3.5 amp (3"x4.5"x4") \$12. Filter choke (Kenyon) 20 Hy. 85 ma. (2.5"x3"x3.75") \$8. Sangamo filter caps, 10 MFD 600V (1.37"x3.75"x4") w/mtg brackets, 2 @ \$6 ea. Above as package deal \$125 plus UPS. **Wanted:** 455 kHz crystal for Hammarlund HQ-145X receiver, plugs in externally on panel. Lou Sabetto, W8ZXXG, 1717 Burgess Road, Cleveland, Ohio 44112; (216) 481-1036 evenings.

Wanted: Tube sockets/bases for 304TL, 807, 6146, 3-500Z type glass envelopes, need not be electrically/mechanically operative. Nate Williams, W9GXR, 6915 Prairie Drive, Middleton, Wisconsin 53562.

Wanted: Power transformer for the Heath Monitor Scope, Model HO-10. John Wandless, K4HTZ, 1118 N. Bumby Avenue, Orlando, Florida 32803; (407) 894-8927.

Wanted: Tubes 8950 and M-2057. Eber Diehl, W7AMM, 821 Niagara St. N.W., Palm Bay, Florida 32907-8213; (407) 952-0772.

For Sale: Maintenance/instruction manuals for military W.W.II equipment plus aircraft gear. SCR522/542 Acft/GND CTL VHF xcvr, ARC-1 Acft VHF xcvr, Complete SCR274N Command set conversion for cks BC442 thru BC946; Collins 51X1-1A Acft rcvr (118-135.95 MHz), 1957 ed.; Collins 951A Glideslope rcvr, 1968 ed. **Wanted:** Yaesu YM24A speaker-mic for FT208R 2 meter HT, 6 pin plug; manual for Hammarlund SP600 rcvr, Johnson Viking Valiant and Ranger xmters. Tom Sorrick, W8IZS, 6446 East Main, Pellston, Michigan 49769. (616) 539-8459.

Wanted: Round ammeter for 2" mounting hole, scaled for 30 amperes; two type FT-243 xtals cut for 3.021 MHz and 8.430 MHz respectively or close enough for modification to same; copy of Kenwood TR-2500 (2m) manual & alignment instructions. Donald Weiler, N5YQC, 4641 Kawanee Avenue, Metairie, Louisiana 70006.

For Sale: Many parts and tubes, new and old. What do you need? All inquiries answered. William Turner, W2WV, 1369 Woodcrest Avenue, Clearwater, Florida 34616; (813) 447-7707.

Wanted: Hammarlund HQ-145 receiver, Knight T-50 transmitter, 1969 ARRL handbook. Don Traves, WB4CVH, Box 102 Security Dept., NAS Cecil Field, Florida 32215-0102; (904) 779-2428.

Silent Key Sale: St. Louis Sparkmen W9PW, W9DZG, W0CQF. Free 8 page 100 item list for large 52 cent SASE. TEN TEC transceivers—Corsair II \$695, ps 961 \$169, Paragon \$1050, OMNI D digital series B \$245, Astron RS20A ps \$79, Henry 2KD 1500W Classic linear \$845, watt meters, tuners, antennas, test eqpt, test gear, tubes, books. All FOB Northville. Joe Keesee, W8VSK, 47270 Main, Northville, Michigan 48167. (810) 349-5893.

For Sale: Cubic Astro 103 transceiver, power supply, manuals and cable, \$600.00. Wayne Cooper, AG4R, 1113

Beverly Drive, Alexandria, Virginia 22302-2423. (703) 671-5629.

Wanted: Hytron Labs., HYTRON HY-65 vacuum tube from the 40's. Gene Nailon, K5DLE, RT 5 Box 114, Guthrie, Oklahoma 73044; (405) 341-8289 hm, 787-8880 wk.

Wanted: Collins 51J4 Rcvr, Johnson kilowatt "Desk" amplifier, Globe King 500 Xmt, Tektronix 7A18 plug-in scope amplifier, Hallicrafters HT-32B Xmt, SX-101 or 101A Rcvr, and manual (docs) for SX-100 Rcvr (latest production run). Ben Deovlet, W6FDU, 933 Robin Lane, Campbell, California 95008; (408) 374-0372.

For Sale: Bare chassis, appears to be Hallicrafters SX62, has pwr xfmr and choke only, offer. **Wanted:** 75S3C, 1CP1 one inch CRT, round chassis punches. Rolyann Prechil, K7DFW, 53099 NW 13th Street, Scappoose, Oregon, 97056-2909, (503) 543-7959.

Wanted: Beginning bug and key collector, especially interested in Vibroplex, needs bugs, keyer paddles, iambics, advertising literature, etc. Please send me a list of your excess items and help me get my collection going. Mitch Mitchell, WA4OSR, 11 Midtown Park, E., Mobile, Alabama 36606-4141, (205) 476-0465 FAX, (205) 342-7259 home. Thanks!

Wanted: Lafayette HA410, HA-460, Hallicrafters SX-88, Hammarlund HQ-170-VHF, National NC-400, Tempo 220TR, Gonset G-50 Sidewinder, Drake TR-6. Steve Barnes, K6PFW, 848 N. Silverwood, Upland, California 91786, (909) 985-1062.

Wanted: HQ-180AC, HX-50. Can sell or exchange QSTs bound 1941-47, any magazines from 1969. Telephone Directory-1969-Buffalo, NY. Fred Wasielewski, RR8 Box 20-B, San Benito, Texas 78586.

Should your travels (convention, hamfest, or vacation) bring you near the Peoria, Illinois area this year, stop in and browse and help me reduce my 60 year inventory of old RX Collins, National, Hallicrafters, GI xmtg and rcvg tubes, old magazines, handbooks, call books, L-C-and-R components. Much more. Harley Christ, W9ALU, RR1 - Box 77A, Lowpoint, Illinois 61545-9801, (309) 443-5380.

Wanted: "Precision" 842-P Volt-Ohm-Milliamperemeter. Originally supplied in wooden case. Condition unimportant except need good basic meter movement. Made in 1930's by Precision Apparatus Corp, Brooklyn, NY. Also, any issues of RCA "Broadcast News" or WE "Pickups" or "Oscillator", 1930's thru 1950's. All replies answered. Thank you! Bob Lambert, W4BZX, 520 Sharpe Road, Columbia, SC 29203.

Wanted: Collins 75A3 or 75A2 receiver, 32V3 transmitter, McElroy or Speed-X bug, Aerio Junior crystal set. Brian Roberts, K9VKY, 3068 Evergreen Road, Pittsburgh, Pennsylvania 15237, (412) 931-4646.

Wanted: Drake T4X transmitter with AC-4 power supply and manual. Must be in good physical condition. Also need AF, RF, and Notch "knobs" for R4B receiver. T.L. Perrault, WA6MVB, Box 178, Retsil, Washington 98378.

Wanted: AMECO 6M converter, copper chassis, in reasonably good condition & manual. Also need volume 1, first printed in 1933, of "Hints & Kinks for the Radio Amateur" published by the ARRL. Gerry Skinner, K4LVZ, 3311 Ellwood Court, Winter Park, Florida 32792-2054, (407) 679-0976.

Wanted: National FBXA, SW3 universal, National power supplies, Hammarlund PRO310, Collins 75S3C, McMurdo Silver amateur equipment, TEN-TEC Argosy, John Hurst, KU6X, 2512 Euclid Crescent E., Upland, California 91784, (909) 981-6759.

Wanted: HAL ARQ-1000 (Amtor adapter for CT-2200), HAL ST-6, DRAKE TR-7A, RV-75, et. al. in excellent condition. Contact Doug via the Exchange.

Manuals, Documentation, or Correspondence

Wanted: Copies of schematic and/or operator's manual for Globe Scout 680-A so that I can complete restoration of this little "Myerson Gem" for my collection. Will happily pay copying and postage costs. Dick Bisher, WA7DKF, 14955 NW Channa Drive, Portland, Oregon 97229.

Need QCWA membership information on Carlin Peck, W8BTX, who may have been active during the 1960's & 70's. W8BTX became a Silent Key on April 2, 1993. Please send any info to Tom Sorrick, W8IZS, 6446 East Main, Pellston, Michigan 49769.

Wanted: ARRL Callbooks for October 1914 and March 1915, Wireless Stations of the World, 1915-1925, published by the Marconi Publishing Co. Bob Arrowsmith, W4JNN, P.O. Box 166, Annandale, Virginia 22003 or collect 1-(703)-560-7161.

Need: Schematic and service manual for model (type) 516 Tektronix oscilloscope. Also need schematic for a model A-15 Sparta Broadcasting board. Russell Williams, W9BXP, 10770 N. Cedars Rd., Little Acres, Seymour, Illinois 47274-9162.

Wanted: Schematic for a Stromberg Carlson radio model 10-A. Andy Sallet, W1TG, 10 Wellesley Road, Nashua, New Hampshire 03062-1318.

For Sale: "WSYI Report" back issues, 5/15/82 to 5/15/92 - \$15.00; "hr/Westlink Report", 11/5/76 to 9/19/86 - \$15.00; both \$25.00. Stuart Oserman, WA9ZPL, 7729 Church Street, Morton Grove, Illinois 60053-1623, (708) 965-0963.

Wanted: Service manual for Kenwood TR7800, new, used, or useable copy. I will cover postage and nominal copy fee. Advise via postcard what you have along with the cost and approx. postage. Charles Carey, WA0DXY, 809 Wood Street, Norfolk, Nebraska 68701-5742.

Commercial Classified Advertisements

Engravings: Callsign/Name Badges by W0LQV. SASE for price sheet. Box 4133, Overland Park, KS 66204.

Announcements:

Attention Members: If you operate older equipment or are familiar with same and would enjoy helping other members with like interests, tell the Exchange about your specialty. Pictures of your classic tube stations, particularly those with you in it or those still in operation are wanted for a permanent file as well as possible publication. An attractive certificate of appreciation will be issued for entries published. Do not send your only photos.

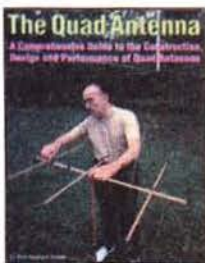


Books and Videos

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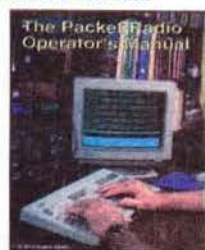
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This book is written by CQ columnist and Amateur Radio Packet authority Buck Rogers, K4ABT. An all new introduction and guide to packet operation, it is the perfect single source, whether you're an advanced user or just starting out. Learn about packet radio without all the technical jargon. Also included are detailed hookups for dozens of radio/packet controller/computer combinations, making this book the definitive resource for the active packet user.

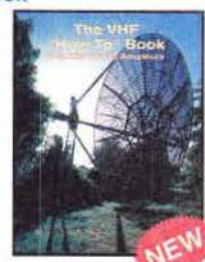
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The Vertical Antenna Handbook

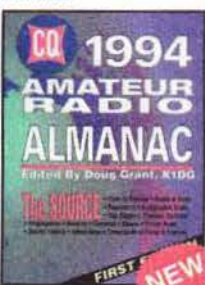
Take advantage of the 20 years of research and practical experience of naval communications engineer Capt. Paul H. Lee, USN(ret), N6PL. Learn the basic theory, design, and practice of the vertical antenna. Discover easy construction projects such as a four-band DX vertical or a broadband array for 80 meters. Ever wonder how to build a functional directive vertical system? Paul Lee can get you started today!

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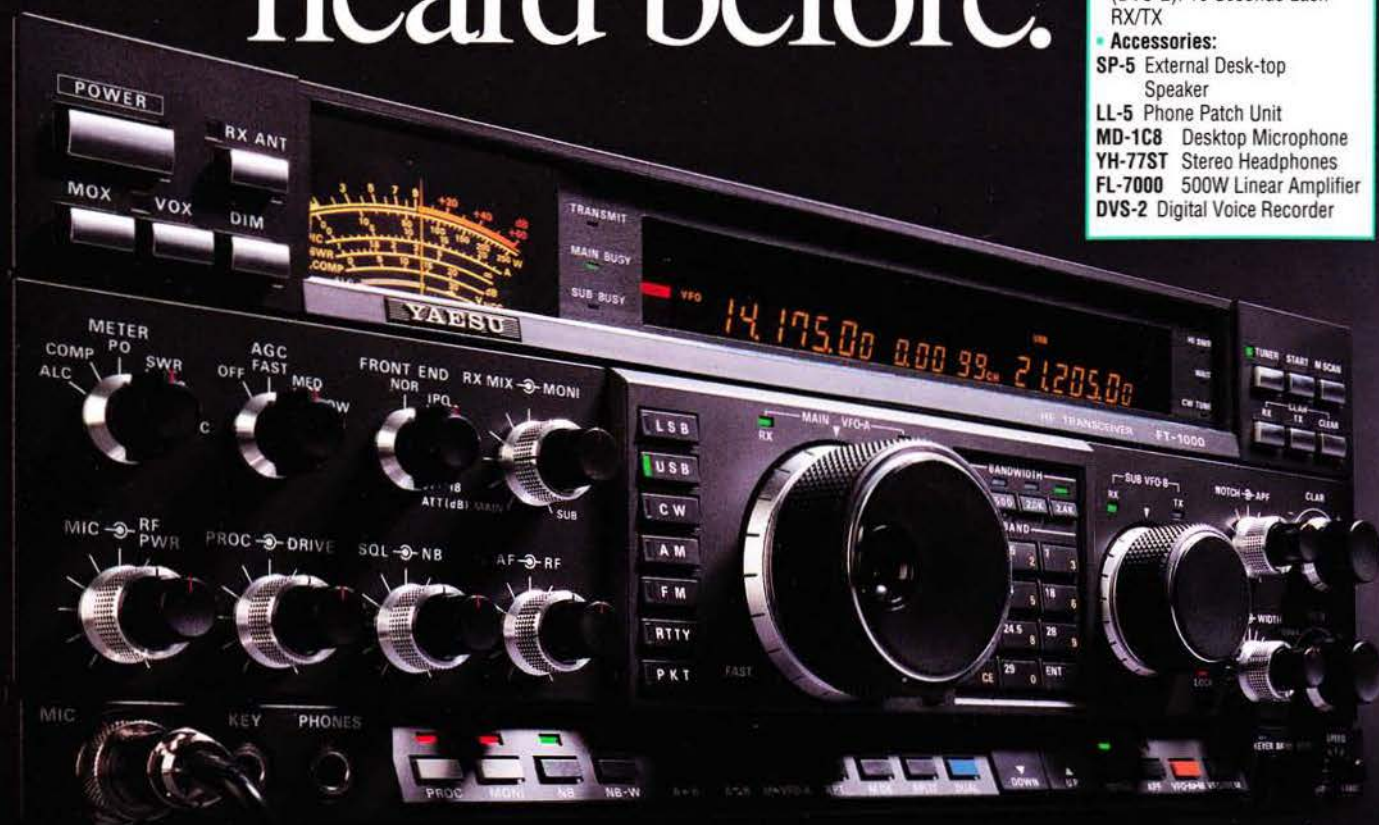
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Memory
- CW Spot and Two CW Key
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RX/TX
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DVS-2 Digital Voice Recorder

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You're a competitor. You want optimum receiver performance and you want "muscle" on transmit. First with 200 watts – more power than any competing transceiver – and "hand warm" at maximum RF. It's easy to see why the FT-1000 has been judged "best overall" by top DX'ers worldwide.

For elite-class contesting and DX operation, exclusive features maximize your score. Dual Receive – Watch a multiplier or new country on one frequency, run QSOs on another. Diversity Reception – Use two antennas at different heights or opposite polarization. Extensive Cascaded IF Filtering – For "low end" battles.

Dramatic front panel design features two flywheel-weighted tuning knobs, RX antenna selector and two large displays.

A perfect blend of electronics and human engineering, the FT-1000 is the Best of our Best!

To hear signals you've never heard before and get the competitive edge, see your Yaesu dealer today.

YAESU

Performance without compromise.SM

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Specifications subject to change without notice. Specifications guaranteed only within amateur bands. Some accessories and/or options are standard in certain areas. Check with your local Yaesu dealer for specific details.

Explore the Kenwood Dimension

The finest selection of communications equipment for the Amateur Radio enthusiast

H F T R A N S C E I V E R S



TS-950SDX •160m to 10m amateur band operation, 100kHz to 30MHz general coverage receiver •Built-in DSP (Digital Signal Processor) •MOS-type FET final section •Dual frequency receive •Menu system



TS-850S •160m to 10m amateur band operation, 100kHz to 30MHz general coverage receiver •DDS (Direct Digital Synthesizer) & digital PLL system •AIP (Advanced Intercept Point) system •IF slope tuning •Electronic message keyer circuit with weighting control



TS-450S/690S •160m to 10m amateur band operation, 500kHz to 30MHz general coverage receiver •6m amateur band and 50-54MHz general coverage receive (TS-690S) •DDS (Direct Digital Synthesizer) & digital PLL system •AIP system •IF shift function tuning •AF notch filter



TS-140S •160m to 10m amateur band operation, 500kHz to 30MHz general coverage receiver •IF shift circuit •31 memory channels with multi-scan functions •Dual-mode noise blanker •Speech processor with audio compression amplifier

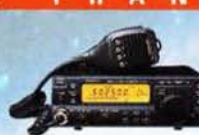
ALL-MODE TRANSCEIVERS



TS-50S •Super-compact, 100-watt, 160m to 10m transceiver, 500kHz to 30MHz general coverage receiver •DDS (Direct Digital Synthesizer) with "fuzzy logic" control •AIP system •100-memory channels •CW reverse •Menu system



TS-790A •144/440MHz dual-band operation •1200MHz unit (option) •All-mode operation •Satellite communications with Doppler effect frequency correction •59 multi-function memory channels with lithium battery back-up



TS-60S •50MHz all-mode operation •Max. 90W RF output (SSB, CW & FM) •100 memory channels •DDS with "fuzzy logic" control •AIP, IF shift (SSB & CW) and optional 500Hz CW filter •Dual-menu system



TM-255A/455A •All-mode operation (TM-255A: 144MHz; TM-455A: 430MHz) •101 memory channels •DDS with "fuzzy logic" control •TF-SET (TX frequency set) function •DTSS selective calling with page •1200/9600bps packet terminal

F M M O B I L E T R A N S C E I V E R S



TM-742A/642A/942A •Multi-band operation (TM-742A: 144/440MHz; TM-642A: 144/220MHz; TM-942A: 144/440/1200MHz) •Optional FM band units for TM-742A/642A (TM-742A: 28/50/220/1200MHz; TM-642A: 28/50/440/1200MHz) •Dual/triple receive capability •101 memory channels per band •Detachable display & control panels (option)



TM-733A •144MHz/440MHz dual-band operation •Dual receive on same band (VHF+VHF or UHF+UHF) •"6-in-1" programmable memory •72 memory channels •DTSS selective calling with page •1200/9600bps packet terminal •AIP system •Cross-band repeater function



TM-241A/331A/441A/541A •Single-band operation (TM-241A: 144MHz; TM-331A: 220MHz; TM-441A: 440MHz; TM-541A: 1200MHz) •20 multi-function memory channels plus call channel •Multi-scan capability •Selectable CTCSS tone encoder •Multi-function microphone supplied



TM-251A/451A •Single-band operation (TM-251A: 144MHz; TM-451A: 440MHz) •41 memory channels (optionally expandable to 200) •Dual-band receive •Digital recording system •DTSS selective calling with page •1200/9600bps packet terminal

COMMUNICATION RECEIVER



R-5000 •100kHz to 30MHz in 30 bands, with optional 108-174MHz coverage •SSB, CW, AM, FM & FSK modes •Dual IF crystal filters •IF shift circuit •100 memory channels with multi-scan functions

F M H A N D H E L D T R A N S C E I V E R S



TH-79A •144MHz/440MHz dual-band operation •Compact, light design •Mos FET power module •Dot-matrix LCD. Guide function & menu system for easy operation •Dual receive on same band •82 non-volatile memory channels in EPROM •ID memory & DTMF memory •Built-in CTCSS encode/decode •Cross-band repeater function



TH-28A/48A •Single-band transmit and dual-band receive (TH-28A: TX 144MHz/RX 144/440MHz, TH-48A: TX 440MHz, RX 144/440MHz) •Alphanumeric memory •Alphanumeric message paging •40 multi-function memory channels (non-volatile) •Tone alert system with indicator



TH-22AT/42AT •Single-band operation (TH-22A: 144MHz; TH-42A: 440MHz) •MOS FET power module •Built-in DTMF keypad •40 memory channels in EPROM (plus 1 call channel) •Multiple scan functions •Dual scan stop modes (CO & TO) •Channel Display function

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